

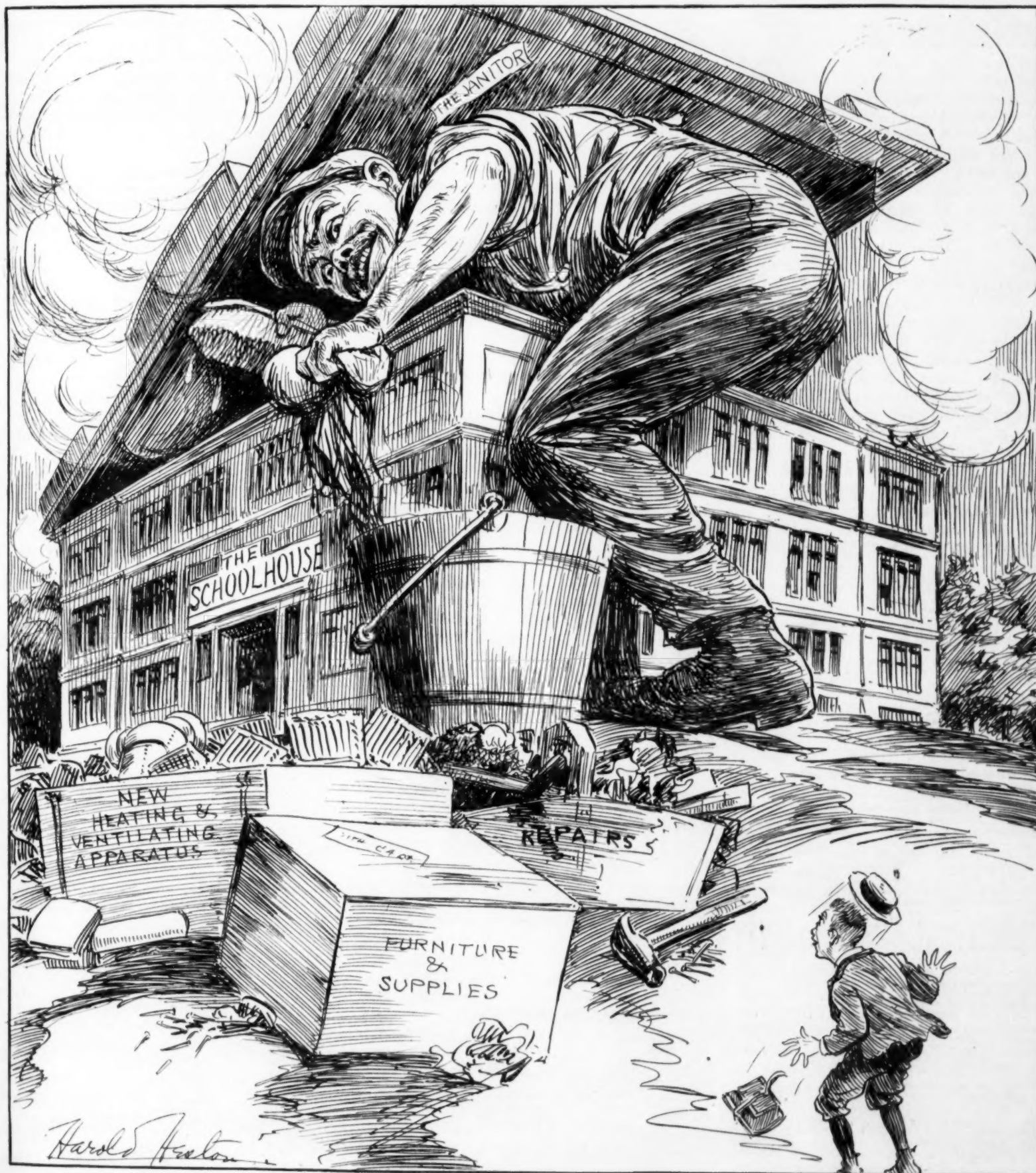
# School Board Journal

Founded March 1891 by WILLIAM GEORGE BRUCE

Volume LV, Number 2

AUGUST, 1917

Subscription, \$2.00 the Year



THE ANNUAL CLEANUP.

# DUTIES, POWERS, AND PREPARATION OF THE HIGH SCHOOL PRINCIPAL IN IOWA

H. C. Hines

The growth of the office of high-school principal in Iowa has been slow and not clearly defined. Except in the case of the establishment of a county high school, the work of a principal is in no way defined by state law. Boards of education have not dealt with the problem of drawing lines of demarcation between the superintendent and the principal on the one hand, and the principal and teachers on the other.

The problem of placing the principal in his proper sphere has fallen to the superintendent of schools. In some Iowa towns and cities the superintendents have met this problem and, in a measure, disposed of it. But there has been no concerted effort on the part of superintendents, nor any organized attempt to mark off the limitations to which a high-school principal may go. The principals, themselves, are not as yet so organized that they are able to define their powers and duties.

In order to ascertain the duties performed by the high-school principals of Iowa the writer drew up a catalog of 45 different duties which might be performed during the school year by any or all principals. The list was sent to 257 accredited high schools located in towns of 500 population or more and 150 answers were received, the results of which are set out in the following table. This table should be read as follows: 137 principals, or 91.6%, teach from five to 40 periods per week, etc. "I. S. T. A." and "N. E. A." represent Iowa State Teachers' Association and National Education Association respectively:

	No.	%
1 Teach from 5 to 40 periods per week.....	137	91.6
2 Attend church regularly.....	137	91.6
3 Read from 1 to 7 educational magazines.....	131	87.3
4 Supervise from 1 to 6 study-periods daily.....	121	80.6
5 Attended ISTA from 1 to 5 times last 5 years.....	115	76.6
6 Act as student adviser.....	108	72.
7 Belong social organizations outside school.....	108	72.
8 Ascertain nature of work offered in colleges.....	105	70.
9 Conduct morning exercises from 1 to 5 per week.....	103	68.6
10 Interview the parents in their homes.....	96	64.
11 Keep card index of records and reports.....	84	56.
12 Have complete charge discipline of school.....	78	52.
13 Specific oversight class dances and parties.....	76	50.9
14 Specific oversight of athletics.....	71	47.3
15 Conduct faculty meetings.....	70	46.6
16 Specific oversight ventilation and sanitation.....	67	44.6
17 Personally select textbooks.....	66	44.
18 Investigate employment students outside school.....	66	44.
19 Determine standard marks for promotion.....	64	42.6
20 Specific oversight debating societies.....	60	40.
21 Make recommendations employment of teachers.....	59	39.3
22 Direction social center meetings in high school building.....	56	37.3
23 Specific oversight high school publications.....	54	36.
24 Teach Sunday School class regularly.....	52	34.6
25 Supervision of "irregular" students.....	52	34.6
26 Made course of study now in operation.....	51	34.
27 Specific oversight dramatic clubs.....	50	33.3
28 Inspect examination questions before given.....	44	29.3
29 Specific oversight of work of the janitor.....	41	27.3
30 Help direct and work in Parent-Teacher Club.....	36	24.
31 Make recommendations for increases in salaries.....	32	21.3
32 Personally purchase supplies.....	30	20.
33 Visit classrooms every day.....	30	20.
34 Attended N. E. A. from 1 to 5 times in last 5 years.....	20	13.3
35 Distribute monthly salary checks.....	19	12.6
36 Specific oversight medical inspection students.....	18	12.
37 Have built a high school building.....	17	11.3
38 Visit grammar schools investigate work offered.....	15	10.
39 Exchange reports with grammar school principals.....	15	10.
40 Make daily roster for promotion by subject.....	12	8.
41 Personally collect tuition.....	11	7.3
42 Have conducted measurements for markings.....	9	6.
43 Specific oversight student government organization.....	9	6.
44 Conduct extension classes.....	8	5.3
45 Specific oversight school savings bank.....	4	2.6

The commonest intra-mural duty, or the intra-mural duty performed by the largest number of principals, is teaching classes; the commonest extra-mural duty is regular church at-

tendance; the intra-mural duty with second ranking is the supervision of study-periods (watching assemblies or study-rooms, not "supervised study"); the uncommonest duty is the specific oversight of a school savings bank.

Of the 150 principals reporting, 137 are engaged in teaching from five to 40 classes per week; thirteen principals, all male, teach no classes. Of the subjects taught by the principals, history ranks first with 47 cases and English second with 38.

One hundred twenty-one principals are engaged in watching study-periods, ranging from one to six periods per day. Twenty-nine principals, nine of whom are female and twenty male, do not supervise study-periods. No male principal in towns of 10,000 population or more is engaged in this activity and 95% of males who watch study-periods are employed in towns of less than 5,000.

One hundred fifteen principals, 62 women and 53 men, have attended the Iowa State Teachers' Association from one to five times in the last five years; twenty principals, fourteen men and six women, have attended the meetings of the National Education Association from one to five times in the last five years.

One hundred twenty-six principals, 55 men and 71 women, read from one to seven educational magazines regularly, three magazines being the common number among the men and two among the women.

## Preparation of Principals.

The larger city school systems are increasing their demands for more preparation on the part of high-school principals, and, it is not unreasonable to suppose that the time is not far distant when it will be impossible for a teacher to become a high-school principal without the graduating certificate of some recognized higher institution of learning. Iowa is gradually eliminating the untrained and amateurish headmasters of her secondary schools. This is partly due to the influence of the North Central Association of Schools and Colleges, partly to the influence of the state higher institutions, and partly to an awakened interest in educational activities on the part of the aspirants to high-school principalships.

One hundred twenty-nine principals reported on school preparation. One hundred nineteen of these completed the regular four-year high-school course. Of the ten not attending four years, only one does not have a degree from a higher institution.

Of the same 129 principals, 83 have attended colleges from one to five years; 34 have taken normal school work from one to five years; and 48 have attended universities either as graduate or undergraduate students.

Of the major subjects studied while taking collegiate or university work, history ranks first, Latin second, education third, and English fourth.

Of the degrees received by 119 principals, 74 have the Bachelor of Arts degree, 21 the Bachelor of Science, nine the Bachelor of Philosophy, seven the Master of Arts, four the Bachelor of Didactics, two the Master of Didactics, one the Bachelor of Oratory, and one the Doctor of Medicine degree.

Principals holding the Master of Arts degree are employed in towns ranging from 1,400 to 55,000 population at salaries ranging from \$810 to \$2,800 annually. Two are women who receive the lowest salaries and are employed in towns of

the least population. Degrees received by 83 principals come from 38 colleges. Thirteen Iowa colleges are represented and 25 outside the state.

Twenty principals have attended the Iowa State Teachers' College and eleven have received degrees therefrom. Three out-of-state normal schools are represented with one degree each. Of the eleven receiving degrees from Iowa State Teachers' College, ten are women.

## Salaries and Populations of Towns.

Prof. E. E. Lewis, of Iowa State University, in a recent study found that in the ten years between 1903 and 1913 the number of male principals in Iowa high schools in proportion to the number of female principals had decreased twenty-seven per cent. The increase in the number of women principals for the same period was 669 per cent.

In the present investigation the data concerning the salaries of principals and the populations of the towns in which they are employed were compared to data gleaned from the Iowa High School Directory for 1916-1917. The results follow:

### State Directory.

	Male	Female
Number of principals.....	91	187
Range of population.....	500-96,000	300-32,000
Range of salaries.....	\$630-\$3,400	\$585-\$1,200
Modal salaries.....	\$800-\$900	\$600-\$800
Median salaries.....	\$1,012	\$757

### Questionnaire Returns.

	Male	Female
Number of principals.....	65	85
Range of population.....	500-55,000	500-7,000
Range of salaries.....	\$630-\$3,000	\$585-\$1,200
Modal salaries.....	\$800-\$900	\$700-\$900
Median population.....	2200	1018
Median salaries.....	\$1,138.80	\$798

The median salaries for men and women principals in Iowa for three different years are listed as follows:

Year	Male	Female
1903	\$ 634	\$725
1913	1,091	666
1917	1,138	798

It will be seen that while the number of male principals was decreasing from 1903 to 1913, the median salary was greatly increased; and while the number of female principals increased the median salary for women decreased. Of that condition Prof. E. E. Lewis, of the State University of Iowa, has the following to say: "These figures show conclusively that the feminization of the position of high-school principal during this period of ten years was accompanied by a decrease in salary schedule. Boards of education did not want to pay the higher salary demanded by men. Women were employed. In 1903 in the accredited high schools of Iowa there were three times as many male as female principals. In 1913, just ten years later, the reverse was true—there were more than three times as many female as male principals."

## Correlations.

One hundred forty-two principals reported on years of experience and tenure. The range of years of experience is from 0 to 40. The majority of cases show a close correlation between years of experience and salaries, men faring better than women. There is a high correlation between salaries and populations, a high correlation between salaries and tenure, and a low correlation between tenure and populations of towns.

## No Typical Day.

It may be said that there is no such thing as a typical day in the activities of the Iowa high-school principal. But, owing to the fact that

(Concluded on Page 70)

# Tentative Standards for Junior High-School Administration

C. R. Stacy, State Normal School, Bridgewater, Mass.

While the junior high, or intermediate, school is a comparatively new institution, it has already gained a foothold in most sections of the country and bids fair to become a permanent administrative feature in our American public school system. But because this reform has been initiated under widely varying conditions there has grown up a variety of practices regarding such features as names used, grades included, housing, location, program of studies, equipment, length of the daily session and of the recitation period, method of changing classes, promotions, service of the same teachers in both junior and senior high schools, preparation and salaries of teachers, and supervision of instruction. Since this variation in practice is in some degree due to local conditions, a certain number of differences of organization and administration may always wisely exist. On the other hand, some of these differences result from the fact that little attempt has been made so far, to set up any sort of standards. While it would be folly to suggest fixed or permanent ones at this time, it may promote helpful discussion to bring forward tentative ones. Such is the object of this article.

## Names Used.

In California "Intermediate School" is the legalized term and this name is used here and there thruout the country. In New Britain, Conn., the name "Prevocational Grammar School" is used, and until very recently the school connected with Fitchburg, Mass., State Normal School was called the "Practical Arts School," altho the same four-curriculum program of studies is offered in these two schools as in the typical junior high school and the same ideals held in mind. Barring scattered instances of this kind, however, the competition is between "Intermediate School" and "Junior High School." The term "intermediate school" has the advantage of indicating the position that the school, in the opinion of a growing number of educators should occupy, namely, that of a school which has an environment and a purpose of its own and which closely articulates with the elementary school on one side and with the senior high school on the other. It has the disadvantage, however, of being confused in the minds of laymen with the middle grades in the eight or nine-year elementary school. The term "Junior High School," on the other hand, indicates to parents the general secondary character of the aims of the school, and suggests to the pupils a certain dignity and importance of station that appeals to their interest and pride. For these reasons, evidently, the tendency has become so strongly in favor of the use of the latter name that it now could well be adopted as the standard.

## Arrangement of Junior High Schools.

The most common arrangement is to have the school made up of grades seven and eight and the first-year high school class. This in a twelve-year school system is the six-three-three plan. The next most common way is to include only grades seven and eight. This is the six-two-four plan. Similarly when the elementary system is of nine years, grades seven, eight, and nine comprise the junior high school. But this six-three-four plan is, in most cases, an adjustment preliminary to the abolition of the ninth grade by having it grow into what would be formerly the first-year high school class. This is the case in Somerville, Mass. Thus the six-three-four is destined to be short-lived. In some places it has been found more feasible to unite only the eighth grade with the high-school freshman class to form the junior high school.

Auburn, Me., has this seven-two-three plan. Aurora, Ill., has the seven-one-four plan. In the south the elementary course is often seven years in length instead of eight or nine. Reorganization in this section, as incited by Richmond, Va., tends to follow the five-three-three plan. One northern city, Concord, N. H., also has its public school period a year shorter than usual. Here the plan is on the six-two-three basis, the secondary division being shortened rather than the elementary division as in the case of the Virginian city. While this diversity is confusing, a study of the trend of the whole movement this last year or two shows that when the country is taken as a whole, departures from the six-three-three and the six-two-four plans are inconsiderable. So far as the rivalry between these two plans is concerned, there are two reasons that are likely to make for the supplanting of the latter by the former. First, there is a growing conviction that secondary education ought to be vitally reorganized and that the high-school freshman class is the portion of the high school most urgently in need of reform. Second, since high school membership has increased in a ratio far exceeding that due to the growth in population, there has been brought about an overcrowding of high school buildings. Hence the housing of the freshman class, which is always the largest in numbers of the four high school classes, in junior high school plants, where both building, maintenance and instruction costs per pupil are less, promises greater economy. Even the first reason because of its educational import ought to be effective even without the second, and the standard grade arrangement should be six-three-three.

## The Housing of Junior High Schools.

Junior high schools are to be found in separate plants either in a central situation near the high school as in New Britain, Conn.; in a district of the city not close to the city high school, as in Rochester, N. Y.; in the same plant with the senior high school, as is the case at Crawfordsville, Ind.; in wings of, and annexes to elementary school buildings, as in Chelsea, Mass.; and in the same building with the elementary grades, but usually on a separate floor, as in the case of small communities like Franklin, Mass.

In short this matter of housing is determined by the size of the town or city, the opportunities offered by new building operations; or, in places where there is no growth in population and therefore no promise of new buildings, by the number and character of buildings available. There may possibly be good arguments for having junior high-school pupils under the same roof with the children of the first and sixth grades, but there seem to be sounder reasons for placing early adolescents, when they must be grouped with pupils of another age, in the same environment with the older students of the senior school, so that the social influence will come from the more mature rather than the less mature group. But if it is reasonable to treat the junior high school as a separate administrative unit and if the problems of early adolescence are to receive specific study, it follows that the standard is a separate building or at least a wing or annex so arranged that it gives an independent individuality to the school.

## Location and Equipment.

The junior high school has two relations to maintain—one with the elementary schools which feed into it, and the other with the senior high school to which many of its pupils advance. In a large city, junior high schools must be as

nearly central as possible to the several contributing elementary schools, and within a distance of a mile or a mile and a half of the homes in the district. Boys and girls who have reached the age of 11 or 12 would seem perfectly capable of walking the distance indicated, but when the distance much exceeds a mile and a half the school department must reckon with the transportation problem. The junior high schools should bear the same geographical relation to the senior high schools that the elementary schools bear to their respective district junior high schools. But with pupils over fifteen years of age the distance to the senior school can be much greater without the matter of transportation becoming vital.

The differentiated work offered by the junior high school necessitates an equipment more extensive than that of the grammar school but less elaborate than that of a good cosmopolitan high school. The standard minimum equipment must include a shop and a kitchen with proper tools and utensils for the practical arts and domestic activities, and suitable room with typewriting facilities and bookkeeping materials for the business courses. The larger the school the more differentiated the work may be. At New Britain, as only one example, six lines of shop experience are given, each boy getting six weeks of continuous experience in each line. Consequently the maximum standard equipment along this line, may include shops for training in all the common trades.

Other desirable features are an assembly hall, library, gymnasium, baths and even a swimming pool. Houston, Tex., has provided this last advantage in new junior high school buildings.

## Number and Length of Daily Sessions.

Practice is divided between the two-session and the one-session plans. With the former there is often a six-hour day. The school at Fitchburg, Mass., was among the first to adopt this. The latter plan follows high school procedure and gives a four to five-hour day. It makes easy the continuance of weaknesses and difficulties that the junior high school is designed to overcome. Anyone familiar with ordinary high school conditions knows the ineffectiveness of home study in the great majority of cases of boys and girls in their early teens. The two-session plan that provides for supervised study-time at the school is much to be preferred. Furthermore, the two-session plan fits more conveniently home meal arrangements and is more wholesome for pupils. Only in cases where the transportation problem seriously interferes should the one-session plan be preferred. Here the difficulty may be overcome, in many cases, by providing suitable lunch accommodations practically correlated with domestic science teaching.

## Length of Recitation Period.

Present practice varies from a period 25 minutes in length to one of 45 minutes. A forty or forty-five minute period seems to be a mere copy of high school practice without regard to the relative immaturity of mind of pupils in the junior high school. If a 45 minute period is enough for pupils in the ordinary high school, and even in normal schools where ages range from 17 to 20, it is likely to be too long for pupils in the junior high school where ages range from 12 to 16. The usual upper grammar-grade recitation is about thirty minutes long. Since the new type of school is dealing with pupils of the same age as seventh and eighth-grade children, it would appear that there is no

call for the extension of the recitation period beyond thirty or thirty-five minutes.

When a period is understood to include study time it will then be sixty or seventy minutes in length. In the Rochester, N. Y., junior high schools the period is of this character and is ninety minutes long. Administrative conveniences rather than pedagogical reasons are probably responsible for this unusual length. With a growing recognition of the desirability of supervised study the double period and the longer school day are quite sure to become standard features.

#### Method of Class Changes.

Two methods are in use. The first is the passing of the teachers from one room to another; the second is for the students to move at the close of recitation periods. The advantages claimed for the first method are the avoidance of noise and confusion in the corridors by the passing several times a day of a large number of pupils and, consequently, simplification of discipline. It would seem, however, that the advantages of such an arrangement are outweighed by those of the second method. In the first place, it is certainly more hygienic to provide the relaxation thru passing from one room to another, of pupils who have been sitting at a desk for thirty minutes, and any school, the principals and teachers of which cannot properly control the movements of pupils thruout the building, is in need of a new and stronger administration. In the second place, the teacher of a given subject needs a certain amount of material or apparatus in order to teach most effectively. This should be gathered together in one room and it is certainly out of the question to consider moving it about from time to time. Hence, it is better to have a geography room, a mathematics room, a science room, etc. In the third place, there is needed in the junior high school large emphasis on self-government so that pupils may be led to feel that they are self-directed citizens of a school community rather than children dependent upon the maternal control and guidance of teachers. This freedom and, to a considerable extent, this informality of passing to and from the various classes is one practical way of encouraging self-direction and self-control. On its merits, then, pupil passing should be the standard procedure.

#### Promotions.

In this matter there is almost a complete accord. A recent investigation has shown that three out of four junior high schools promote by subject. Both theory and practice, then, indicate this is the proper and acceptable standard.

#### Use of Same Instructors in Both Junior and Senior Schools.

In small school systems it has been found feasible to use a few teachers in both the senior and junior schools where the two buildings are within easy reach of each other, or where one plan accommodates the two schools. This arrangement permits of a closer specialization in teaching than would be possible with two very small and entirely separate staffs and leads to a greater continuity of work in any subject common to both schools by having it in charge of one and the same person. Even in larger systems the teaching of a highly specialized branch such as a modern foreign language is done in the junior school by an instructor from the senior school. Sometimes, too, the work in both schools in a department, as French or German for example, is coordinated under the general oversight of the head of that department in the senior school. On the other hand, there is a danger to be guarded against in not preserving the proper difference in methods of instruction applied to youth in their early teens and those applied to later adolescents.



DR. E. A. SMITH,  
Superintendent of Schools,  
Salt Lake City, Utah.

While no clear-cut standards can very well be set up for this particular feature of administration, any arrangement is worthy of adoption that makes for the better realization of a close departmentalization and coordination of instruction with due regard for the proper differences in methods in the two schools.

#### Preparation and Salaries of Teachers.

In most cases where junior high schools have been organized grammar-school teachers of superior skill and adaptability have been placed in charge and assigned to departmental work according to the lines of their predominating interests and abilities. While there seems to be a tendency among superintendents in the West to insist on college-bred teachers for this service, the lack of professional training so much in evidence among college graduates in the East makes the great majority of superintendents in the latter section feel that few colleges are at present equipped to properly train their students for this new field and so they look to the normal schools as a source of supply. After transfers of the more capable seventh and eighth-grade teachers from the old type of elementary schools to junior high schools have exhausted the present supply, one institution or the other, or both, must be drawn upon. But neither the merely academic-college course nor the ordinary two-year normal-school course should be accepted as a desirable standard of professional training for junior high-school teachers. The minimum standard might well be a three-year normal course. This would provide an extra year in which specific study of the psychology and pedagogy of early adolescence could be made and in which a more scholastic grasp could be gained upon an elected group of closely related subjects likely to be taught departmentally by the prospective junior high-school teacher. The maximum standard might be a full college education, plus a year of definite professional study and practical training that brings the student into intimate contact with boys and girls in the classroom thru supervised apprentice teaching.

Except in a very few of the largest cities where the salaries already are high in comparison with the wages paid in other places, junior high-school teachers now command salaries slightly higher than those of the teachers of the first six grades. On the other hand aside from certain unusually well-to-do and progressive cities, such as Los Angeles, for example, the compensation of junior high-school teachers does not equal as a rule that of the senior high-school teachers. The more extended academic

equipment demanded by the senior high school is likely for some time to come to be responsible for this situation. In a given community, therefore, any standard wage scale for junior high school is likely to be fixed at an amount relative to the position the school holds in the educational system, namely, an intermediate position.

#### Supervision of Instruction.

The large school at Rochester, N. Y., has not only a principal but also a director of academic subjects. In this case the tendency of each department to over-emphasize the importance of its own branch of study is controlled, a proper balance maintained and a correct pedagogy stimulated. In moderate sized schools this coordinating influence ought to be expected of the principal. In smaller schools immediate supervision is often placed in the hands of the principal of the senior high school because of the fact that the same building houses both the junior and senior schools. This arrangement is open to the objection that ordinary high school methods, bad as well as good, are likely to prevail down thru the seventh and eighth grades and a six-year high school rather than a real junior high school atmosphere is almost certain to result. In the smallest type of school supervision will have to be exercised by the superintendent of schools.

These instances indicate that no radically new scheme of supervision can be set forth nor any one plan applied to all schools. It is sometimes said that the fact that instruction in the junior high school is departmental, and thus in the hands of specialists, results in the need of less supervision than that given to ordinary elementary instruction. The fact is, however, that the work is to some extent new in its aims, content and methods and therefore calls for unusually close attention to this whole matter of oversight whether the supervision be given by superintendent, principal, or special director. The only standard to set up, then, is a competent, close, sympathetic supervision, always with an eye to the pedagogical needs of pupils of the junior high school age.

#### DR. E. A. SMITH IN SALT LAKE CITY.

The first year of Dr. E. A. Smith's Superintendency has proven the wisdom of his selection as Superintendent of Salt Lake City. The progressive school board of that city early gave Dr. Smith supervisory authority over all departments of school business, including financial, purchasing, supervision and all departments of administration.

The visitor who comes in contact with the Salt Lake City school system is at once convinced that the schools are in the hands of a leader of delightful personality, one who possesses keen business ability, and who is an educator with power to determine educational values.

During the year, the eight Junior High Schools with an enrollment of 1,830 pupils have been systematized and organized and are giving courses of study which make an unusual appeal to the patrons of these schools. Upon the advice of the Superintendent, the commercial course has been extended to four years of work. Patriotic, civic, labor and social clubs of the city have taken an unusual interest in the night-school movement to Americanize the foreigner. Night schools have been most popular, and among the innovations is a class in automobile repairing. The school for backward pupils has been thoroughly reorganized during the year. A corps of competent nurses supervise the health of the pupils, in all the schools. Over 8,000 boys and girls organized in the boys' and girls' clubs of the city, are at work in the school gardens, on vacant city lots or on home grounds.

Dr. Smith and the school board inaugurated an unusual campaign in connection with the school budget for 1917-18. The representatives

(Concluded on Page 70)

# THE CARE OF SCHOOL BUILDINGS

INCLUDING JANITORIAL SERVICES AND WAGES, AND ECONOMY IN USE OF  
FUEL, LIGHT AND WATER

Henry B. Rose, Secretary, School Board, Providence, R. I.

"Cleanliness is next to Godliness." "Prevention is better than Cure." "Safety First."

It is not intended to designate these trite words as the text of this paper but they embody the underlying thought of what follows as to the care of schoolrooms.

Even a brief study of this subject opens up vast possibilities in its treatment and the magnitude of the task involved in properly covering its various phases—hygienic, scientific, educational and economic—makes it impossible, within the limits of this brief article, to do more than barely approach the matter. There will not be included any consideration of such work as repairs, improvements or alterations of buildings.

The human body is of not more importance than the mind which it shelters, yet the welfare of the mind is dependent on the condition of the body. Constant care and expense is devoted to keeping the body in a healthy and cleanly state and this redounds to the well-being of the mind.

If the body suffers either thru sickness or thru lack of proper care, the mind is weakened or its action obstructed. While the fundamental object of the school is the education and improvement of the pupil, that object cannot be successfully attained if the building which shelters the pupil is improperly or insufficiently cared for.

## Importance of Janitorial Service.

For the care of the mental improvement of the pupils, highly trained and, in most cases, highly paid officers are employed for the supervision of such care. The teachers who are in immediate charge of the instruction of the pupils are required to satisfactorily complete a course of professional training before they are considered eligible for appointment.

But for the care of our school buildings men are employed who, with few exceptions, are entirely untrained in the sanitary care of school premises. Their supervising officers are seldom properly trained in the duties that should be required of the men they are engaged to direct.

Dr. Dresslar, Specialist in School Hygiene and Sanitation, says: "The janitor of a modern school building is, next to the principal, perhaps the most important officer of the school. The time has passed when anyone who is sufficiently strong to sweep and build fires should be considered capable of being a good janitor. With the advent of modern systems of heating, ventilation, sweeping, humidification, disinfection and general oversight of the buildings, an intelligent and trained man is needed. Unless a janitor understands thoroly the theory and construction of thermostats, the use of fans, the best method of sweeping, dusting and general sanitation, he cannot render efficient service, however willing he may be. A modern janitor needs specific training, not only in the tricks of his trade, but in the theoretical and practical understanding of all these things."

There is no question of the importance of a janitor's work in a school building. There should be, and doubtless, is greater recognition of this fact on the part of those charged with the administration of school affairs as advancement is made along all lines of school work. It is realized more than ever that the efficiency and operation of a school plant depend on the

knowledge, intelligence and care of the janitor and that the measure of success attained in this respect is reflected, to a certain extent, in the results shown in the classroom. The janitor in any building is an important factor in controlling the health and comfort of its occupants and in none more so than in school buildings.

## Supervision and Training.

It is of the utmost importance that there should be a competent and trained officer in charge of the school buildings and responsible for the control of the janitors. He should supervise and regulate their work and instruct them in their duties. He should be a trained engineer and, in addition, a good executive with the ability to manage men.

There should be some definite and systematic plan for the instruction of janitors. Something along this line is done in a number of cities. Classes for janitors and engineers are held in some evening technical schools. These are generally not limited to school janitors but are open to all who desire to take the course. There is usually no urging of school janitors and engineers to attend and, with possibly few exceptions, there is no requirement that they do so. Few cities probably have any regular and well defined course of instruction which all janitors and candidates for janitors' positions are compelled to take as a requisite for holding their positions or proving their eligibility for appointment.

In some of the larger educational institutions of this country the janitors have regular meetings where they receive instruction from some competent persons in the different phases of their work and where they discuss matters which would tend to improve the service. The officer in charge of the care of school buildings, by whatever title he may be known—Superintendent of School Property, Superintendent of School Buildings, Superintendent of Janitors, etc.—should organize a school for janitors and engineers where those already in the service, or those desiring to enter the service, may be instructed and receive a course of training in the duties of the positions they hold or wish to hold. Regular sessions of such a school should be held at stated intervals in designated school buildings.

Dr. Dresslar suggests that the course of instruction at such a school should consist of "lectures by the superintendent and medical inspector on the danger of dust; the selection and placing of school desks; the care of blackboards; the disinfection of toilets and schoolrooms; the general management of basements; the care of the health of a janitor; the proper temperature of a classroom and why. Technical instruction by the school engineer or department mechanic on how to build fires and stoke economically; the theory and supervision of thermostats; the theory and management of the various systems of ventilation; plumbing fixtures; sweeping compounds and how to make them; oiling floors; management of fans; the disposal of ashes and cinders; the management of vacuum cleaners; sweeping and dusting; protection against fires, etc. 'Tricks of the trade,' set forth and illustrated by the most efficient janitors of the service. Lectures by selected principals on fire drills; the care of school property; the general management of boys; the moral influence of janitors; opportunities of a janitor; the care of playgrounds, etc. Discussions of the latest and

best information relating to the work of janitors, gathered from magazines and books."

Unquestionably if a plan as thus outlined, or even a somewhat abbreviated modification of it, were adopted and systematically carried thru, the results would show much greater efficiency in the janitorial force. By such a course of instructive lectures and discussions it will be possible to create an interest in matters relating to health and sanitation which because of ignorance does not now exist and which will give those who have the care of the buildings a stronger sense of their responsibilities.

There should be some knowledge of the principles of ventilation, heating and air moisture; the use of the recording thermometer, the hygrometer and the anemometer; the injurious effects of dust, and methods of cleaning which will avoid the dangers; sufficient knowledge of plumbing to properly care for the closets and traps and to note faulty construction of repair work and to locate leaks or other faults. This training should not be made too technical in its character, but while sufficiently so to attain the results aimed at, should be made as interesting as the nature of the subject will permit.

## Qualification for Appointment.

By making provision for such training it would be possible to require of all janitors and applicants for janitors' positions a higher standard of preparation and of "professional" fitness for their work. It would tend to remove the position from the influences of politics or "pull" and a janitor by becoming well trained and efficient would become more valuable and should receive more pay than one without such qualifications, and the pay should be high enough to attract reliable and capable men.

Janitors should be appointed and advanced strictly on merit. An applicant should satisfactorily prove by an examination that he possesses knowledge of the duties of and qualifications for the position he seeks. He should then be placed upon an eligible or probationary list from which selections are made for appointment to regular positions. It hardly seems necessary to mention that moral character must always be a prerequisite to the appointment of a janitor.

## Efforts Towards Standardization.

A report of the Committee on Janitor Service of the National Education Association, after bringing out the fact of the lack of training of janitors in many important essentials of their work, particularly emphasizes the need of instruction in sanitary methods, on which the health of the pupils so largely depends, and the absence of which has contributed to develop the so-called "occupational" or "school diseases" as anemia, adenoid and catarrhal conditions, disorders of the nervous system, all predisposing to tuberculosis and other diseases. Briefly summarizing the report:—the committee suggested securing the co-operation of the school children to obtain certain results leading to a general standardizing of janitors' work.

To accomplish any degree of success towards the attainment of such standardization it is necessary to know the actual as well as the desirable conditions in every building and also in every room, each having its own conditions to be learned and controlled. This knowledge can be obtained with least expense and greatest effectiveness by enlisting the co-operation of pupils. Such effectiveness is secured by that constant supervision which is found to be indispensable

Address delivered before the National Association of School Accounting Officers held at Pittsburgh, Pa., May 15, 1917.

by good housekeepers, by permanent records of sanitary details in place of guesses and opinions, and by the interest of future voters and home-makers in such details thru practice in regulating them.

It was proposed that there should be groups of pupils for each subdivision of a building, designated as "health officers," to serve for certain periods of time, limited so that every pupil shall serve some time during the year. These "health officers" are to ascertain and report upon such sanitary details as temperature, dustiness, relative humidity, air currents and cleanliness. Periodical readings of thermometers are to be recorded in a book and perhaps a week's record charted on a blackboard.

It was suggested that in high schools which have departments of biology or home economics, dustiness can be measured or estimated by cultures, or by the sugar method recommended by the Committee on Standard Methods for the Examination of Air of the American Public Health Association.

In elementary grades dustiness can be tested daily at the beginning of the session by the simple method of wiping surfaces with a clean cloth. If the room has been properly dusted by the janitor, the cloth remains clean after the test. There are strong objections to sweeping or dusting of rooms or corridors while pupils or teachers are obliged to use them or even within an hour before school opens, and the "health officers" should note and record any such violations of sanitary rights unless such work is performed under conditions and in a manner which would stand the tests.

Relative humidity may be ascertained by the pupil "health officers" who can be taught the use of the whirling wet and dry bulb thermometer. The form of such instrument recommended in the American Journal of Public Hygiene is the sling psychrometer employed by the United States Weather Bureau. Air currents should be measured with an anemometer or estimated with a candle or joss stick, unless ventilating flues have their own indicators. These tests should be made and recorded at the middle of each session.

Inspection as to the cleanliness of wash-bowls, water-closets and possibly of other parts of the building or yard should be made and the conditions recorded once each session. The cleanliness of the windows should be periodically noted, as dirt sometimes diminishes illumination one-quarter to one-third, measured by a photometer. It is important that this matter be attended to in rooms that are specially exposed to smoke and dust. When pupils in a room are too young to perform such duties, "health officers" from older grades may be appointed.

All these reports of the pupils and the results following are to be entered in a permanent record. The data secured will prove valuable in correcting unsanitary conditions and assist in reducing the danger of "school diseases." The adoption of this plan will, it is hoped, prove useful and interesting and the facts will demonstrate that school housekeepers must be trained in sanitary methods.

It is quite possible that there will be objections on the part of the educational authorities to enlisting the services of pupils in inspections of this character to the extent thus mapped out, altho they have been utilized in many schools for a part of the work outlined, particularly the temperature and ventilation records.

The adoption, however, of some such plan will serve a two-fold purpose—the pupils will have their interest aroused and will gain some valuable information; the results of the inspections as recorded and charted will aid the officer in charge of the janitorial force in checking up the

work of the janitors, and assist him in obtaining the maximum efficiency.

#### Standardization.

It would seem desirable that as far as possible the work required of school janitors should be standardized. The nature of the service is such that it ought not to be a difficult matter to have fixed standards. In an examination of rules laid down for janitors in a number of cities there seems to be a wide variation in the requirements.

While it is undoubtedly true that varying conditions in different cities, and even in different buildings, in the same city call for some elasticity or at least account for the variance in the regulations applying to a particular line of work, still it is possible to have a greater degree of uniformity than appears to be the existing practice. Take for instance the fundamental part of a janitor's work—*cleaning*. A study of the facts from a large number of cities shows a great lack of uniformity in the requirements as to the frequency and the manner of the cleaning.

There was found to be a fair degree of uniformity in the matter of sweeping and dusting, particularly as to the frequency. The number of times the walls were to be cleaned varied from once in two months to once a year. A much greater variation existed in the number of times windows were to be washed. In this connection is recalled a statement—quite facetiously expressed—that window washing varied from "once a week to summer showers." The average was about four months. As the cleaning of windows largely affects the light in the schoolroom, some definite standard should be fixed. Requirements as to the use of dust cloths and dust absorbing compounds varied greatly. The tendency is, however, to a much more general use.

No definite standards exist in the important items of ventilation, humidity and heating. It should not be difficult to fix standards for these. As to ventilation, authorities agree that 2,000 cubic feet of fresh air per pupil per hour is required in elementary grades and 2,500 cubic feet per hour for high school pupils. There should be 200 cubic feet of air space for each person in a room, with a change of 30 cubic feet of air per minute. This can be measured and that amount required.

Some authorities claim that relative humidity should be between 50 and 70 per cent and should not fall below 40 per cent even in extreme winter weather. This can also be regulated in accordance with a standard. The commonly accepted degree of temperature proper for school-rooms ranges from 66 degrees to 70 degrees F. at the breathing line. It should never exceed the latter. In actual practice, however, it probably is more often higher than 70 degrees than lower. This certainly can be definitely standardized.

A well considered, concise set of rules should be adapted, exactly prescribing the several important duties of the janitor, stating how often and when each is to be performed. There should be no rule which leaves any important duty to be done "whenever necessary" or "as needed." A schedule for each building should be adopted, giving the hours at which the daily tasks should be performed and the days of the week for the less frequent jobs. Such a schedule, while conforming to the general standards fixed for the whole system, would be made up to suit varying conditions existing in the different buildings.

A printed form should be furnished by means of which, the janitor should be required to report at fixed intervals, as to the work performed. This should be checked and countersigned by the principal of the school and sent to the officer

in charge of the janitorial force. Such a method would undoubtedly be more effective in keeping the janitor "on to his job" than the periodic inspections of the building by the head janitor or the superintendent of buildings. These reports should by no means be understood as meant to supplant the personal inspections. They would serve as an additional means to obtain thorough efficiency in the care of buildings and should also be useful in making up the efficiency record of each janitor, upon which the question of his promotion or retention in the service should be based.

#### Economy in the Use of Fuel, Light and Water.

Economy in the use of fuel, light and water is so intimately associated with the duties of those charged with the care of school buildings that it can very properly be considered in the same connection. It is true that the janitor cannot be entirely responsible for all wastefulness in their use. Such matters as the construction of the buildings, the character and efficiency of the systems installed, the quality of coal and thoughtlessness or negligence on the part of others occupying the buildings may contribute to lack of economy. But the janitor, by the nature of his duties can, more than any one person in the building, check extravagance, and economy in this respect depends to a great degree upon his care and judgment.

The janitorial force can, and should, add to its usefulness and value to the city by the savings it can accomplish. The most effective way to obtain economy in the use of these important items is to thoroughly instruct the janitors as to their duties and responsibilities in this regard and by strict supervision see that the instructions are followed. In the training course, upon which so much value is placed, they would learn the best methods of caring for their fires and all the points bearing upon the use of fuel, light and water.

Another requisite to this end is the establishing of standards in the cost of heat, light and water. This can be done by a study of the factors entering into these items. These standards having been established, the officer in charge of the janitors should by a system of periodic reports from the janitorial force, checked up by figures from the accounting department, make comparisons with similar periods of use and by a thoro "follow up" system ascertain the reasons for discrepancies and if caused by extravagance, correct the evil.

Expenditures for each item should be reduced to unit costs and comparisons made with other buildings and each building compared with its own record for a series of months, quarters or years. Great variations exist in the cost of these items in different buildings. Take the item of fuel. If two or more buildings of the same size, number of rooms, similarly constructed and with similar heating plants and using the same kind of coal, show a wide variation in the amount of fuel consumed, it brings into question the efficiency and judgment of the man in charge of the plant, and the reason must be ascertained to the end that extravagance or waste, if any, may be eliminated. A wasteful employe is an expensive man for the city.

Properly prepared blank forms should be furnished to the janitors upon which they should report monthly the quantity of coal received, the quantity used and the approximate balance in the bins and the daily outside temperature. They should be supplied with means for weighing coal or for ascertaining it by cubic measure. Tables showing cubical capacity of coal bins and barrows or other coal carriers should be furnished them for making reports on quantity. In making comparisons of the amount of coal used

it is important to know the cubical contents of the buildings.

If several buildings are grouped in sufficient proximity, a central heating and lighting plant would effect a considerable saving in both fuel and light and in the number of employees required.

In some systems heat is wasted by opening windows of classrooms. Without entering into a discussion of the merits or demerits of a system that refuses to properly perform its functions when that is done, our interests, just here, in the economic use of fuel would lead to the conclusion that inasmuch as there are systems of that character in use, any such acts of interference should be prohibited.

The tendency of some teachers, especially in the smaller schools where there are no automatic regulators, to demand an abnormal amount of heat is not only wasteful, but injur-

ious to pupils, and should be restrained. A plan of heating and ventilating assembly halls and community rooms separately from the other parts of the building would be an aid to economy in fuel in view of the increasing requirements for such rooms in the extended use of school buildings. It can also be aided by the use of automatic heat regulators and by the automatic control of the fresh air supplies for ventilation.

A saving in fuel is effected by shutting off the boilers from the heating system and by cleaning and banking the fires as soon as the school session is over for the day. The quality of the fuel used is a very important factor in the cost of heating and there should be careful inspection to ascertain whether the specifications as to quality are fulfilled and also that the quantity purchased is delivered.

What has been suggested as to regular reports

in the matter of fuel also applies with equal force to light and water. In the case of light the comparisons might be made monthly or quarterly, while with water probably a quarterly or even an annual comparison would be sufficient. In a large building where the plant will admit of so doing, the electric lighting could probably be supplied from its own power at less expense than from the outside system. Care should be exercised not to leave lights unnecessarily burning in rooms and corridors. Teachers are often at fault in this matter. There is a great tendency to use lamps of much higher candle power than is either necessary or advisable. More thoughtfulness and attention by all concerned would aid in diminishing the expense of light.

The use of water for baths and swimming pools offers large opportunities for waste which

(Continued on Page 67)

## AN EDUCATIONAL GOVERNOR

Honorable Charles S. Whitman, Governor of the State of New York, has made an enviable record in educational legislation during the period of time he has served as Governor of the Empire State. He is now serving his third year only and yet during that time he has approved more important school legislation than has probably been approved by any other governor of any other state in the Union. Governor Whitman appears to have gone into partnership with the educational leaders of his State, by giving careful consideration to what such leaders have regarded as progressive legislation upon educational matters, by then giving the strength of his support to such propositions in the Legislature and by approving the bills when they came to him for executive action. It is so unusual to have a governor distinctly interested in educational matters that the SCHOOL BOARD JOURNAL takes pleasure in carrying in this issue a picture of Governor Whitman and in presenting to its readers a general review of the things accomplished for public education in New York State since Mr. Whitman became its governor. We trust that the governor of each state in the Union will read the record of Governor Whitman on legislation of this kind and that each of such governors will then give to the educational leaders of his respective state, the same support and co-operation in matters affecting public education that the popular Governor of New York has given the leaders and workers in public education in the Empire State. Achievements of this magnitude and gubernatorial support of the character given by Governor Whitman encourage educational workers throughout the country, inspire the men and women who are looking forward to the time when the school shall be under the independent educational management and leadership which insure the maintenance of schools for the benefit solely of the people and conserve and make secure our democracy.

The Journal congratulates the leaders of education in the State of New York upon the important reform inaugurated in the administration of the greatest school system in the country and further congratulates them upon having a governor who appreciates the relation which education bears to the state and the nation and gives it such hearty support. In perusing the record of Governor Whitman, the following important measures in the field of public education alone give a standing to his administration which will increase with the years that are to come:

1. The physical training law, which is a model in its requirements and in its method of administration. Under this law every child in the State between the ages of 8 and 16 must receive each year instruction in physical training from qualified teachers, certified by the Commissioner of Education. This work is given

under the direction of the school authorities.

2. The military training law which is wholly disassociated from the schools and provides that, under the direction of the Military Training Commission, all boys between the ages of sixteen and nineteen shall receive military training.

3. A measure of vital importance to public education is the enactment of the teachers' retirement law for the great city of New York. This law gives protection to twenty-five thousand teachers in that city and insures to them a competence upon retirement in old age or for premature mental or physical disability. It is generally conceded that this measure is the first great retirement law enacted in any state which is upon an absolutely sound actuarial basis.

4. The measure reorganizing the rural schools of New York State by eliminating the antiquated school-district system adopted more than a century ago and substituting therefor the township system. This law will work a revolution in the administration of the rural schools of the State.

5. A uniform law for the city school systems of the State, which repeals more than 250 special acts and gives to the school authorities of the several cities of the State independence from municipal control in the management and operation of the schools, is a great measure. It may not be perfect in its details but it has the foundation and the outlines for the development of a law to regulate the management of the schools in the cities of the State without interference from any organization or authority which is not directly concerned with such management.

6. It appears from the press reports that the appropriations for public schools are the largest

in the history of the State, exceeding those of last year by one-half million dollars, and this at a time when large appropriations are required under the present national crisis.

7. A law has been enacted which requires each board of education in the State to take an enumeration of all the children who are three or more years mentally retarded, to provide for the segregation of such children and to afford them the kind of instruction which is adapted to their needs.

8. A similar law was enacted in relation to the physically defective children. This law provides that special types of instruction shall be provided in the public schools for the blind, the deaf and the crippled. New York sets a worthy example to the other states in providing that unfortunate children of this type shall be educated in their home cities instead of being committed to state institutions, thus giving these children the benefit of home interests and associations.

9. Provision has been made for additional state inspectors to assist in the enforcement of the compulsory attendance law, for additional medical inspectors and nurses to carry out the provisions of the medical inspection law and for the establishment of a bureau to supervise the education of the illiterate adults in the State.

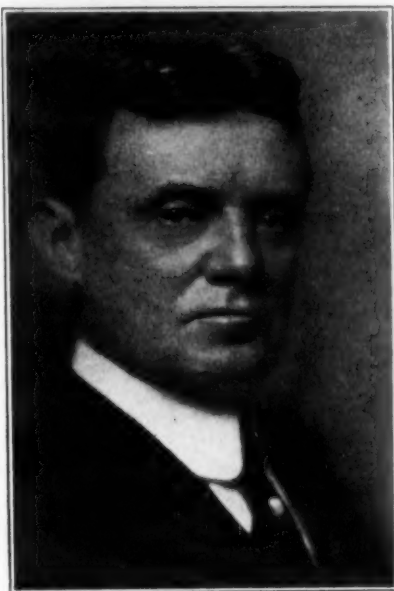
10. The employment of a special director of agricultural education by each town, village and city of the State is authorized. The State will pay \$600 toward the salary of each person employed to supervise agricultural education.

11. Believing that the 207 rural school superintendents were not receiving sufficient compensation, the Governor generously approved a measure which increases the salary of each of these officers \$300 per annum.

12. The wisdom of supplying an adequate number of professionally trained teachers for the public-school service was recognized by authorizing the erection of an additional state normal school, by making appropriations for the erection of additions to the New Paltz and Geneseo State Normal Schools and for the erection of a new building for the Potsdam State Normal School.

13. A law which requires each city in the state to maintain, under regulations prescribed by the State Commissioner of Education, a census bureau for the proper enforcement of the compulsory attendance law was also enacted. The compulsory attendance law was amended in minor particulars for the purpose of strengthening the law and making its enforcement more effective.

14. Several laws were enacted to protect the professions of law, medicine, dentistry, pharmacy, etc., and larger discretionary powers were conferred upon the State Board of Regents in the proper enforcement of laws regulating the practice of the various professions.



HON. CHARLES S. WHITMAN.

# A Century of Progress in Schoolhouse Construction

May Ayres

(Continued from July Issue)

## Plans Which Did Not Live.

There was a great deal of experimenting with schoolhouse planning during this early period. Some of us may remember in our grandfather's libraries enticing books devoted to the possibilities of the octagon. On the theory that the circle gives the greatest area for the smallest wall space, the octagon was recommended as most nearly approaching the circle and yet being adaptable for building purposes. It is a curiously fascinating theory; and even yet there are samples of its results in most communities. In one community near New York City there is today a rural school building which receives its light from all eight sides at once.



Fig. 19. Octagonal School with Overhead Lighting.

Illustrations 19 and 20 are an example of one of the earliest of the octagonal schools, designed (probably about 1842) for "School and Schoolmaster" by Messrs. Town and Davis. According to this plan, all the lighting comes from the roof. The windows shown in the plan were intended for ventilation only, and were to be closed by shutters. In fact, the designers urge that they be omitted entirely. A stove stands in the middle of the room, with its chimney extend-

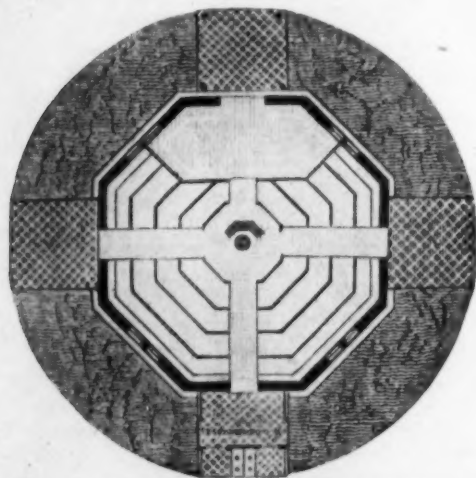


Fig. 20. Inside of the Octagonal School. Children sit with backs to center.

ing thru the center of the lantern roof, and "finishing outside with a sheet iron vase or other appropriate cap." Around the chimney is an opening for ventilation, protected by a movable cap. The lantern is 15 feet above the floor, eight feet in diameter, and four feet high, with windows which swing on pivots and may be opened for additional ventilation.

"The master's seat may be in the center of the room; the seats are parallel with the walls and so constructed that the scholars may sit with their backs to the center, by which their attention will not be diverted by facing other scholars on the opposite side, and yet so that at times they may all face the master and the whole school be formed into one class. The lobby next to the front door is made large (8 feet by 20 feet) so that it may serve for a recitation room. This lobby is to finish eight feet high, the inside wall to show like a screen, not rising to the

roof, and the space above be open to the school-room and used to put away or station school apparatus. This screen-like wall may be hung with hats and clothes or the triangular space next the window may be enclosed for this purpose. The face of the octagon opposite to the porch has a wood house attached to it, serving as a sheltered way to a double privy beyond.

workers of that Architect whose design is faultless, and whose execution is perfection itself."

Accordingly, the plans for school buildings which Mr. Dwyer presents are strikingly simple. Illustrations 21 and 22 show a schoolhouse which he estimates can be erected for \$320. It is 25 feet square, with an additional entrance hall at two opposite corners. The master's desk is in

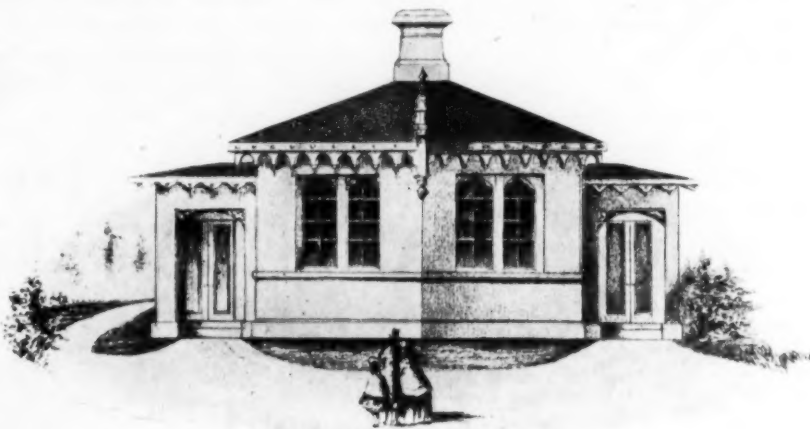


Fig. 21. Proposed Rural School, 1856. Cost about \$320.

This wood house is open on two sides, to admit of a cross draught of air preventing the possibility of a nuisance. Other wing rooms may be attached to the remaining sides of the octagon if additional conveniences for closets, library, or recitation rooms be desired."

Illustrations 21, 22, and 23 were designed by Charles P. Dwyer of Buffalo in 1856. The introduction to his book, "The Economy of Church, Parsonage, and School Architecture," is in curious contrast to the coldly scientific treatises of the present day. "The school is the temporal monitor and guide which leads the growing intellect to reverence at the shrine of that Almighty Being whose breath has fanned it into existence, and whose final fiat awaits its judgment day. . . . Church and School Architecture belongs not exclusively to the wealth of cities. Its calm and simple dignity gains nothing by the puerile ornament of lavish extravagance. The vast universe which we inhabit is of such unimaginable grandeur and wonderful appropriateness that it were the merest vanity to dream of piling up an edifice with human hands worthy of any other end than to stand as a Babylonian testimony of man's infinitesimal smallness, and the pitiable weakness of his vaunted power, when placed in contrast with the

the center, the stove in one corner, and the benches for the children are parallel to the four walls. The children may face in either direction according to the wish of the teacher. Two windows are placed in each of the four walls, but it is suggested that if more blackboard space is

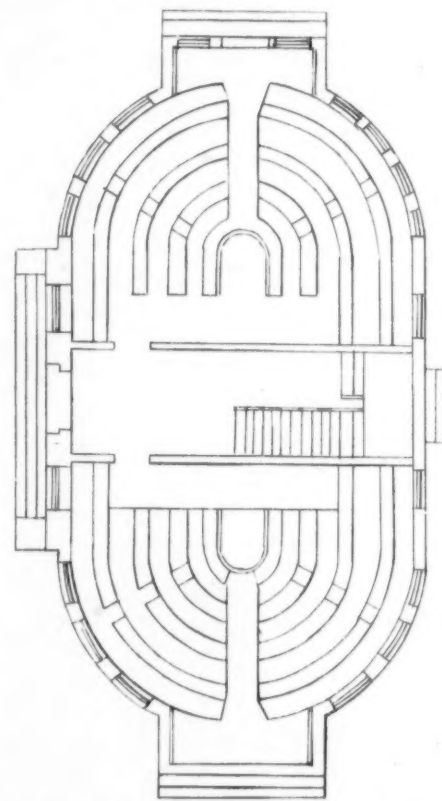


Fig. 23. Plans for Seminary. Overhead Lighting. Cost \$3,260.

needed one of the windows at the back of the room might be omitted.

Illustration 23 is somewhat more pretentious. It is intended for use as a seminary for a town of eight or ten thousand inhabitants. The central hall is of two stories, the lower used as an entrance, the upper occupied by recitation rooms. The semi-circular wings, one for boys and one for girls, are provided with side windows, separate entrances, and covered with glass roofs, so that an abundance of light and air may be secured. The estimated cost of the building,

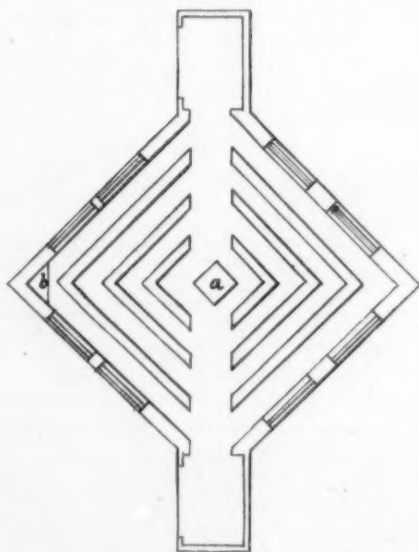


Fig. 22. Teacher's Desk at center. Pupils face in or out.

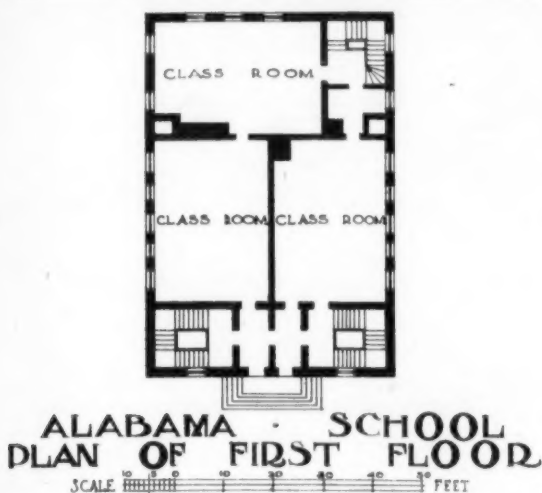


Fig. 24. Alabama School, Cleveland, 1861. Still in use.

constructed of brick covered with light brown cement is \$3,260.

In neither of these plans is provision made for toilets, and no mention is made of the subject in the general text. Considerable space is devoted to the desirability of heating by furnaces and hot air registers. Ventilation is to be secured by building the walls hollow, with openings at the bottom to the outside air, and openings into each room near the ceiling. The author suggests that "these ceiling ventilators may be made very ornamental by being covered with a tin plate, cut or perforated in suitable devices." Careful instructions are given for installing lightning rods on every school building. Suggestions are given concerning the need for wells and rain water cisterns, and emphasis is laid upon the need for providing some means whereby children may wash hands and faces during hot weather.

Mr. Dwyer is greatly concerned over the increasing amount of round shoulders among school children, and recommends seats with backs, and sloping desks, boarded around, very much like those in illustration 11. He also suggests that along the bottom rail or stand of the desk there should be a foot-board, four inches wide, raised three inches from the floor, and in-

clined at an angle of 30 degrees on which pupils may rest their feet. "And here we would offer a suggestion which if carried out might be of infinite service to the rising generation, especially the female portion. It is to have slats screwed onto this foot-board, to form positions in which to place and retain the feet, so as to overcome that repulsive habit which too many children acquire of turning in the toes when sitting, standing, or walking."

"The alleys dividing the desks should if not matted be painted. But if possible they should be matted, for the purpose of carrying out, as far as possible, the idea of home comfort in the schoolroom." For finishing the walls he suggests that "a cream color, a delicate rose, or a light straw color would have a very pleasing effect. . . . It would be less like 'school' and more like the home of mental enjoyment. It would be more sought after as a pleasant gathering place for aspirants of knowledge. The bright, gay color of the walls would reflect its warmth upon the youthful mind as a summer sky enlivens even the dullest heart. There is more, far more philosophy in this simple thing of color for a schoolroom wall than any know save those who try its gentle telling influence." And again, "Let everything in and about the schoolroom wear an inviting aspect; and even the lecture-board, that black and repulsive looking object of terror to the young, be a brilliant blue or red. There is no excuse for making it black. Chalk will show as well on the colors named in the limited range of a lecture room." "Let Minerva look more like a kindly mother, and her tiny temple be more of a home to her favored children. In this way, education will acquire more seductive power over the young mind than as under the present too long existing system."

#### The Civil War and After.

Altho many ingenious plans were being suggested, the general tendency about the middle of the century was to construct school buildings in the plainest and most economical way possible. Halls, entrances and cloak rooms were either omitted entirely or cut down to the smallest possible space. Construction in cities at least was usually of brick, with wood interiors, and the work was so well done that many of these old buildings are standing and in good condition at the present time. The Alabama School, (Illustration 24) built in Cleveland in 1861, and still in use is a good example of this type.

About the end of the Civil War, however, a wave of prosperity swept over the north. It is sometimes said that the end of any war leaves the victorious people prodigal of money and anxious for new adventures. Perhaps that theory accounts for the rise of a new and ornate type of architecture for school buildings. Towers, cupolas, and spires vie with gothic windows, and wooden scroll work. Ornaments are attached to the outer surface of buildings without any apparent reason for being. Internally, balconies, pillars, winding stairs, and mural decorations are lavishly furnished, and the public school takes its place as one of the magnificent edifices of the community.

The Sterling School, built in Cleveland in 1869, (Illustration 25) was considered the finest school building in Ohio. Every window was built with pointed top. Chimneys and ventilating shafts stood in series ranks against the sky, and unexpected portions of the roof jutted out beyond the rest. The windows were narrow and deep set, and most of the rooms were lighted from two sides. The stairs were curiously complicated. Six flights led from the first floor to halls just below the level of the second floor and from here six more short flights led to small platforms outside the classrooms. Two flights of

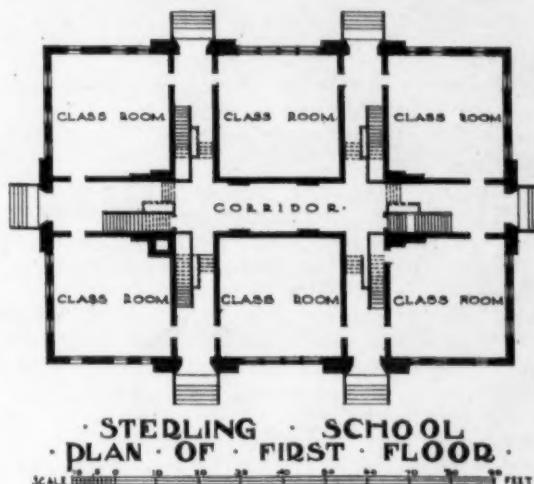


Fig. 25. Sterling School, Cleveland, 1869. Once considered the finest school building in Ohio.

winding stairs with wedge-shaped treads led from the second floor to the third. No provision was made for wardrobes, special rooms, or offices. With all their imperfections, these buildings mark the transition from the public feeling that almost any building would do for a school, to the community conviction that the finest building was none too good for the children's use.

#### Sliding Partitions and Convertible Classrooms.

Shortly after the close of the Civil War it became evident that some arrangement should be made whereby joint meetings could be held with all the children assembled in one room. The Lancasterian tradition had by this time been largely forgotten, and very few halls or auditoriums were built. It was in response to the recognized need for a larger meeting place that some ingenious architect devised the plan of separating classes by sliding partitions instead of doors.

In 1877, Edward R. Robson, architect for the London school board, making a study of Ameri-

(Continued on Page 69)

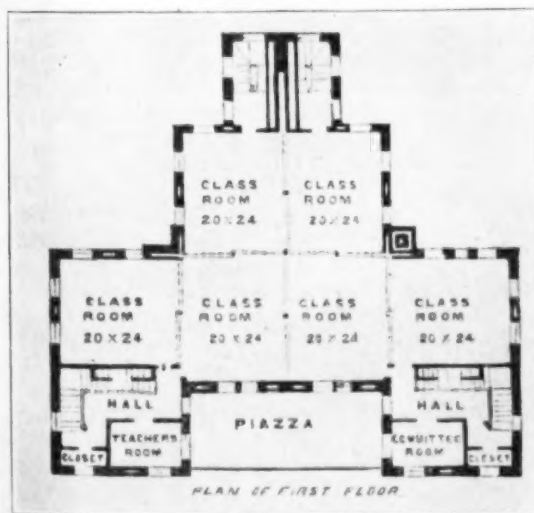


Fig. 26. One large room converted into six small rooms by sliding partitions.

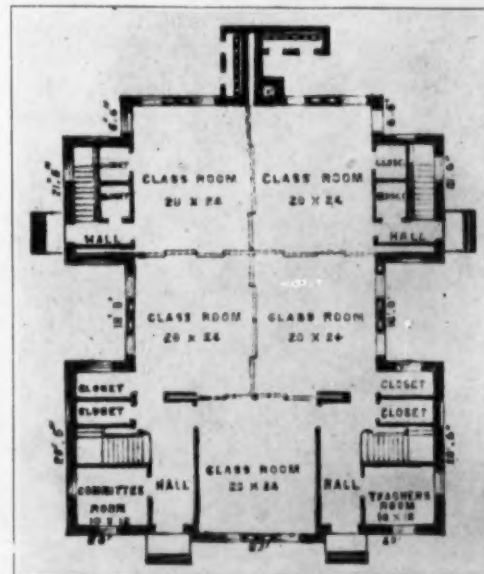


Fig. 28. Plan of Wood Street School, showing use of partitions.

# THE PORTLAND CONVENTION

William C. Bruce

The first real war convention, a great patriotic rally, a memorable and solemn declaration of the rededication of American education to the cause of democracy—this briefly describes both the purpose and the result of the 55th convention of the National Education Association in Portland, Ore., July 7-14.

Those who doubted the possibility of making the convention an enormous success were most pleasantly convinced of their error. In timeliness and interest, the program was above the average which the association usually reaches; the attendance was good; the spirit of speakers and members was enthusiastic and somewhat serious; the entertainment exceeded in cordiality and genuine heartiness any that has been experienced in years; the politics was mild, and the physical conditions of weather, hotel accommodations and train service were all that could be asked.

Portland is among the best of American cities. It is the bustling commercial center of the world's greatest remaining timber area. It is a city of great commerce and of still greater industrial possibilities. Its natural surroundings are beautiful and its citizens have done their utmost to make its buildings and their surroundings equally beautiful. Every Portlander owns his own home; and every Portland home has its well-kept lawn, its rose bush, its wood pile and its patch of potatoes—all of which is doubly interesting to the easterner because of the manner in which roses and spuds and wood extend to the very curb—without danger of theft or vandalism.

The people of Portland are fully aware of the natural advantages of their city and state. They speak of them modestly even when they make superlative world comparison. Unlike the Californians and other westerners, they are so certain of the delightfulness of their climate, the fruitfulness of the Oregon valleys, the richness of Oregon mineral and timber lands, that they take them largely as a matter of course. To the National Education Association visitors, they exhibited a warmth and heartiness for which they should be famous and a type of hospitality which the old south attributes to itself alone. The local school officials were on hand all the time and the mere intimation of a desire to such men as Mr. O. M. Plummer or Supt. L. R. Alderman was the occasion of complete and overflowing attention. The Portland hotels were more than adequate for the N. E. A. throngs; the service was surprisingly good and the prices were welcome low. In meeting places, the city is well provided. It boasts a new auditorium that challenges comparison for comfort, completeness, size and acoustic properties with any in the United States. Every department of the association was housed in a conveniently located hall or church, within a few minutes' walk of the hotels and the auditorium.

## The Program.

But, lest the convention be forgotten in the delight of the recollections of the City of Roses, let us attend the meetings.

Patriotism, the war service of the schools, the work which teachers may do as individuals as well as public servants—these were the topics that were dwelt upon in every general as well as sectional program. Men and women from the west and northwest predominated thruout, and the program gained appreciably by this very fact. Many of the faces and figures were absolutely new on the N. E. A. platform. Apparently the speakers understood the occasion and the importance of their audience, for the papers were invariably to the point and their presentation was forceful and clear. It is refreshing to attend a convention from which the perennial holder of program honors is absent and to find in place of the slightly bored man of great reputation, whose discussion of a subject can be readily forecast—a stranger who is fresh and eager to interest and convince and whose



MARY C. C. BRADFORD.

viewpoint is, if not novel, at least individual and distinct.

## The Opening Session.

Pres. Robert J. Alely sounded the keynote of the meeting in his opening address, when he said:

"This association has never held a meeting when national and world conditions were as they are now. Our country for the first time in her history is part of a world conflict. This struggle is between democracy and autocracy. Democracy must win or all the sacrifices of the past have been in vain.

"By the establishment by Congress of the Council for National Defense with its advisory committee on Engineering and Education, official recognition was given to education as a national resource. It is significant that this is the first time education has been so recognized. As teachers we certainly appreciate the confidence of the government in our work. We renew the pledges that our work of the past has verified and offer ourselves unreservedly for the great work ahead of us.

"Organized education must continue to produce broadly educated men and women. In addition, it must speed up its machinery and produce men and women specially prepared to handle the difficult and complex problems of the great war. It is also essential that organized education do more than heretofore to disseminate knowledge and to illustrate and teach how our citizens may produce more and conserve better.

"The democracy of this country has produced a multitude of schools of different ideas and ideals. In this crisis, we need the hearty and united service of all the men and women produced by all these schools. The discussions of the past have, perhaps, helped us to clarify our notions, but they have also fixed us in our opinions, strengthened our conservatism, and unduly emphasized differences. We need now to open our mind to new needs, to let go some of our conservatism, and to place a mighty emphasis upon fundamental likenesses.

"In a country like ours where saving has been unnecessary, keenness of wit and an ability to profit by failure have been fairly good substitutes for systematic training and scientific knowledge. The rapid increase of our population, the higher plane of living expected and demanded of our citizens, the increasing complexity of modern life, the demands of our allies upon us in the present crisis, and the part that we must play at the close of the war in the remaking of the world all unite to give American education an opportunity and to place upon it a greater responsibility. If education accepts its opportunity and assumes its responsibility, there must be co-ordination and co-operation. It is the function of the National Education Association, the greatest educational organization in the world, to bring to the American people a constructive educational program, adequate for present needs, and flexible enough to be easily adjusted to future growth."

Pres. Charles R. Van Hise, of the University of Wisconsin, followed Dr. Alely with a discus-

sion of the food conservation program which the government has outlined as a part of its war policy. Dr. Van Hise declared that "in order that the war may be carried to a successful conclusion, it is necessary that four things be done: First, men must be sent to France by the hundreds of thousands; second, our men and those of the allies must be furnished with vast quantities of munitions; third, ships must be built with sufficient rapidity not only to transport men, munitions, foods and other supplies, but to make up for the losses by submarines. The fourth and final great problem is that of food for ourselves and the allies."

## The Conservation Program.

He showed that the world's crop of wheat is short nearly a billion bushels and that the allies need from the United States more than 550,000,000 bushels, of which perhaps four hundred million bushels can be supplied provided a complete conservation program is carried out. The production of sugar is also enormously short and there is a similar shortage of fats. The United States can be of enormous service if it readjusts its food program, by eliminating meat and wheat from all meals during one day of each week and by reducing the per capita consumption of sugar from four to three ounces daily.

Mr. E. B. Piper, Editor of the Oregonian, opened the evening program with an eloquent exposition on the part which the newspapers have played during the past three years in bringing before the American people the necessity of military preparedness and in arousing aggressive and outspoken loyalty to American ideals. Mr. Piper praised the high patriotic purposes of the members and urged that the schools do no less in fostering a sound public opinion for democracy.

"The greatest proof that the world is making progress," said Miss Sara H. Fahey of New York City, "is that 141 years ago the Declaration of Independence was uttered to an unresponsive world. Today, it is the creed of two-thirds of the people of the earth."

From that Declaration, we get the slogan for our entrance into the present war. "To make liberty and self government safe for mankind. Teach pupils that their destiny as Americans is onward and upward realizing this ideal for every one of God's children. So train them that they will be determined to hold their country true to her democratic ideals, and that they will have faith in her power to realize her ideals.

"In our country the schools should stand alone in its ability to discriminate and reflect the American peoples' conception of citizenship and patriotism. Such patriotism is of the character that prompts a citizen to serve his country in whatever way she needs him most. It is patriotism for daily living as a member of the society whose basic principle is that government rests on the consent of the governed. Because of this ideal, America is today committed to the most serious war the world has ever known. Long and anxiously had we hoped and prayed and trusted that our land would not be drawn into that seething vortex which has well nigh engulfed all of Europe. But our country found at last that it was impossible to keep out. She found that tacit approval of a great principle counts for but little. She found that the world is slow to respect men until they strip and fight for a principle."

## The Tuesday Program.

Miss Julia Lathrop, chief of the Children's Bureau, warned the assembled teachers on Tuesday afternoon against the danger of economizing against the children of the United States. She said:

"The ultimate treasure and resource of any people is its young life—the only surety of the continuance of the race. Slowly we have arrived at certain measures of protection for those under sixteen by compulsory education laws, by

child labor laws, by mothers' pension laws, and now by a national child labor law.

"It is not too much to say that the first effect of war is to threaten all such standards; it may suspend or destroy them all, so that now in the beginning it is exceedingly important that we should face squarely the risk before us. Admittedly our standards of life, including those of child protection, are higher than those of Europe. The important consideration is the attitude of the public mind toward the preservation or loss of these standards.

"It is especially noteworthy that England has not permitted any lowering of the age limits for factory work. Its exemptions for farm labor by children have been considerable in certain localities, yet continually opposed in others and in some districts no exemptions have been allowed.

"The countries which have borne the brunt of the war have indeed sacrificed the schooling of children to their evident injury. This year, however, notwithstanding the increasing exhaustion of the war, England and France have taken determined measures to restore or to improve their old standards. In England, the Board of Education has demanded a budget, the largest in the history of English education, with the purpose of raising teachers' salaries, restoring school buildings to school use, and increasing school efficiency.

"It is inspiring to know that certain younger countries have from the first refused any sacrifice of children's rights to education. This heroic struggle to protect the schooling of children in countries so desperately involved in war as are France and England, this brave insistence upon no reduction by the colonies which have sent men so freely and generously to the aid of England are in strange contrast with the spirit of the law passed by the largest state in this country permitting the school year to be curtailed five months; in strange contrast to the specious willingness to let children do their bit; in strange contrast with the suggestion that the Federal child labor law shall be suspended or repealed before it goes into operation.

"Today as never before, it is certain that the public school teachers of America have an unparalleled power to guard the nation's children and to mold public opinion so that this country will insist that the schools shall gather momentum during this period of war in order that they may better cope with the inevitable disturbance of orderly life which war entails."

At the close of the Tuesday program, the Belgium Commission was introduced to the convention thru a fortunate coincidence. The little group, with its pathetic appeal, aroused enthusiasm to a pitch such as no N. E. A. meeting has seen. "Long Live Belgium!" and "Long Live America!" were cries that were only surpassed in fervor by the singing of "America" in which the entire audience joined.

For genuine interest, the high point of the convention was reached on Thursday evening when 160 men of Oregon were admitted to citizenship on the stage of the auditorium, in full view of an audience that filled every seat in the great building. The occasion was solemn and impressive and not in the slightest theatrical. Every formality of the court was observed and the address of the judge to the new citizens, as well as the solemn oath administered to the thirteen or more groups from as many countries, will be long remembered.

A speaker who aroused considerable attention by the timeliness of her message was Dr. Caroline Hedger of Chicago. In discussing on Thursday evening, the cost of the inadequate night school to the individual foreign man and woman, Dr. Hedger took the three-fold standpoint of exploitation, fear and separation. She considered the cost to the American from the standpoint of misunderstanding, labor overturned, injury and waste. She pointed to the impossibility of high levels of democracy as one of the costs of the inadequate night school and touched upon the impersonality of night-school instruction, its lack of neutralization and its effects upon industry.

The National Council devoted its session on Saturday evening, to conservation of food and to the problems of thrift and thrift teaching. Mr. Arthur H. Chamberlain introduced the subject and State Supt. R. H. Wilson of Oklahoma, Supt. Clarence Dempsey of Haverhill, and Mr. S. W. Straus were among the important speakers.

#### The Annual Election.

The annual election of officers was preceded by a spirited contest between two western women state superintendents, Mrs. Josephine Preston of Washington and Mrs. Mary C. C. Bradford of Colorado. The latter had a well organized campaign force that had done considerable work before the convention and was represented at all the state meetings. The meetings were readily carried so that Mrs. Bradford had a large majority in the nominating committee. It was interesting to see the old leaders of many N. E. A. battles stand aside quietly, while the ladies carried on all the political maneuvering—and did so skilfully, quietly and in perfect good spirit.

The officers elected are:

President, Mrs. Mary C. C. Bradford, State Superintendent of Public Instruction, Denver, Colo.

Vice-Presidents, Robert J. Aley, Orono, Me.; Mrs. Josephine Preston, Olympia, Wash.; Miss Charl Williams, County Superintendent, Tennessee; A. R. Kent, Raton, N. M.; E. C. Elliott, Helena, Mont.; L. N. Hines, Crawfordsville, Ind.; John A. Widstoe, Utah; Anna Webb, Blanton, Tex.; W. N. Sheats, Tallahassee, Fla.; R. H. Wilson, Oklahoma; Walter W. Haviland, Harrisburg, Pa.; Mary Schenck Woolman, Boston, Mass.

Treasurer, O. J. Matthews, State Normal School, Tempe, Ariz.

#### The Resolutions.

The resolutions very properly reaffirmed the loyalty of the N. E. A. to the United States and the dedication of the membership to war service. A poorly considered proposal on the part of some of the women teachers in the direction of the exemption of men teachers from war service was rejected by the men on the resolutions committee. The resolutions read in part:

The National Education Association, assembled in annual convention under unprecedented conditions of world war, recognizes that the first duty of the hour is whole-hearted national loyalty. Our supreme wish is to give the fullest measure of service for the sacred cause of our country and our allies, in defense of democracy and righteousness.

We pledge to President Wilson and the national administration, and to governors and other authorities of our respective states, that we will conduct all educational affairs committed to our care in this spirit, putting aside for the present the consideration of all other questions, however important.

We rejoice that the young men and young women of our country have manifested such a splendid spirit of patriotic devotion to the na-

tional cause. The records of our secondary schools, colleges and universities give proof that the American educational system has not failed to inculcate the spirit of patriotism. We are proud of the work that your young people are doing in army, navy, training camps, hospitals and Red Cross service.

Realizing that this is not to be a war of a few months, that victory is to be won, not so much by individual valor as by organization and full use of the resources of the nation, we are convinced that the educational system must be maintained in the highest possible state of efficiency. All are agreed the standards in the elementary, intermediate, secondary and industrial schools must not be allowed to deteriorate during this crisis, but, if possible, must be improved. Likewise, collegiate and professional education must be encouraged and further developed, because one of the greatest needs of the country both in war and in periods of national reconstruction, is trained leadership.

In this spirit we recommend to all who are responsible for educational organization and administration that they survey present conditions and evaluate the work being done in order that the greatest possible efficiency may be immediately secured.

Finally, as President Wilson has given us the vision, we ask the blessing of God upon the cause of the nations in alliance to save the world from militarism and autocracy, and we pledge again that we will work with entire devotion for the establishment of a triumphant peace after victory, a peace to be administered by a "Veritable League of Honor," an inclusive league of nations founded upon the principle of national loyalty extended into world citizenship.

#### The Annual Meeting.

The brief annual meeting of the association gave the casual visitor a better idea of the important research and promotional work of the association than attendance at the general or departmental sessions. The officers of the association have in recent years adopted the wise policy of limiting the service of committees by tacking on provisions to the appropriations by which reports are required in one or two years. At Portland, nearly one-third of the appropriations involved a condition. The appropriations as made totaled \$4,000, of which sum the largest share, or \$1,200 will go to the Committee on Organization. Of the larger appropriations, the sum of \$500 will go to each the Committee on Publicity and the Committee on Standardization of Schoolhouse Planning; \$250 to the Committee on Elementary English and \$100 each to the Committees on Superintendents' Problems, School Patrons and Libraries. The Committee on Organization, whose business it will

(Concluded on Page 58)



THE FIVE WOMEN STATE SUPERINTENDENTS.

From left to right: Miss Ethel Redfield, Idaho; Miss Mary Trumper, Montana; Miss Edith K. O. Clark, Wyoming; Mrs. Mary C. C. Bradford, Colorado; Mrs. Josephine Corliss Preston, Washington.

# A STUDY OF SCHOOL RECESSES

W. H. Heck, Professor of Education, University of Virginia

This study is based upon notes taken from October, 1915 to December, 1916, during conversations with ten superintendents, 42 principals, and two representative teachers of 41 city, town, or rural schools or school systems in nearly every section of Virginia. Listed as one each in this group of 41 are three counties, eleven cities, and 27 smaller communities, including over 180 elementary and 53 high schools and over 51,000 elementary and 8,000 high-school students. The schools as a whole are probably typical of average conditions in many states. Minor variations within one system were not noted, and only the general tendencies are here emphasized; individual schools are not named. The data could not be consistently grouped according to size or type of school. No form of questionnaire was used, because the actual conditions could be interpreted better thru informal discussion.

Recesses are one of the most neglected phases of school management and have received little attention in educational literature, a page of discussion being an unusual amount specifically for this subject. The literature on play tells of some games for these periods but does not deal with the recess problem as a whole. It is earnestly hoped that more interest will soon be shown in recesses, which occupy about one-sixth of the school day and influence the organization and success of the remainder. This large proportion of the child's school life must be used to the greatest possible advantage and made to serve indispensably in furthering the aims of education.

Altho the main points in this study are the uses of the recess, the initial points are (a) the amount and (b) the distribution of recess time in relation to the total school time. What is the length of the school day in each grade and how does it vary from grade to grade? How much recess time is given in each grade and what is its proportion to the total school day? Does it vary as the school time varies? How is it distributed in each grade thru the day? To what extent do the amount and the distribution of the recess time influence each other?

The length of the school day for the different grades has mainly been decided by tradition and is changed almost as slowly as religious dogma. But either scientific justification for, or modification of, present schedules is an extremely difficult question, due to the many contributory problems of school hygiene, personal hygiene, curriculum, methods, fatigue, boredom, home and social conditions. Most administrators change the school day only under pressure from outside or inside the system; and those using this pressure, on account of some interest not accommodated by the existing schedule, seldom realize the related problems involved. The present report does not deal directly with this question, which will be studied in detail later on, but only indirectly as affecting recesses.

## Schedules in Virginia Schools.

The following Virginia school law allows the necessary local variation in matters of schedule, and the few specific requirements are often not closely followed in practice:\*

"Length of daily session.—The time of opening and closing school shall be prescribed by the district board of school trustees, subject to the approval of the division superintendent: provided, that where an intermission of thirty minutes or more is given no school shall open

later than 9 o'clock a. m., nor shall any school be taught less than five hours each school day, including the necessary time for appropriate opening exercises. The time of opening and closing schools, with the intermission to be given, must be specified in contracts with teachers."

The State form of contract with teachers does not limit the local trustees further in this matter:

"It is also agreed that the said party of the second part shall open school at — in the morning, give — minutes at — o'clock, — minutes at — o'clock, and — minutes at — o'clock, and close the school at — o'clock in the afternoon (a school day shall consist of — hours and — minutes, and a school month of four weeks of five school days each)."

We now come to a summary of actual conditions in the state, as represented by the data collected for the present study.

The schedules for first and second grades are too varied to be combined in single averages. The seventeen first grades with sessions not alternating with those of other classes average 291 minutes of school and 41 minutes of recess, netting 250 minutes for school work; the eighteen first grades with morning sessions average 181, 13, and 168 minutes respectively; the nineteen first grades with afternoon sessions average 137, 7 and 130 minutes respectively. The 22 second grades with sessions not alternating with those of other classes average 340 minutes of school and 59 minutes of recess, netting 281 minutes for school work; the fifteen second grades with morning sessions average 188, 12, and 176 minutes respectively; the eleven second grades with afternoon sessions average 147, 8, and 139 minutes respectively.

Noticeable is the great difference between these three groups in the same grade, as compared with corresponding groups in the two grades. Furthermore, the recess time is 14, 7, and 5 per cent, respectively, of the total school time in the first-grade groups, and 17, 6, and 5 per cent in the second-grade groups. For each minute of recess in the former groups there are 6.1, 12.9, and 18.6 minutes, respectively, of school work, and in the latter groups 4.8, 14.7, and 17.4 minutes. The average deviations in the first-grade groups are 67, 12, and 18 minutes, respectively, from the group averages of total school time, and 19, 3, and 6 minutes from the group averages of recess time; and the corresponding deviations in the second-grade groups are 40, 16, and 25 for school, and 19, 3, and 8 for recess. The range of variation in the former groups is 180-420, 150-220, and 105-180 minutes, respectively, for school, and 10-70, 10-20, and 10-30 minutes for recess; and the corresponding range in the latter groups is 245-420, 150-220, and 105-180 for school, and 10-85, 10-20, and 0-45 for recess.

These figures reveal an extreme lack of uniformity in the total school and the recess time in both the first and second grades, while the following figures reveal an extreme uniformity from the third grade thru the high school. There is evidently needed some golden mean of similarity in similar grades and progressive difference from grade to grade, especially in the first five grades.

The 34 third grades with full sessions average 357 minutes of school and 62 minutes of recess, thus netting 295 minutes for school work; the 37 fourth grades average 362, 63, and 299 minutes, respectively; the 39 fifth grades average

372, 63, and 309 minutes; the 39 sixth and 39 seventh grades (also eighth in two systems) average 371, 62, and 309 minutes; the 37 high schools (8-11) average 371, 62, and 309 minutes.

*Each of the grades 3-11 approximates six hours of school, one hour of recess, and five hours of school work. In each, the recess is about seventeen per cent (16.7-17.4) of the total school time; and for each minute of recess there are about 4.8 minutes (4.76-4.90) of school work.* The average deviations of the five groups from their group averages of school time are 30, 25, 21, 22, and 23 minutes, respectively, and from their grade average of recess time 15, 15, 14, 16, and 13 minutes. In each grade the longest school day is 420 and the longest recess 80 minutes; the shortest school day ranges from 220 to 320 and the shortest recess from ten to thirty minutes.

The general similarity in these schedules is partly explained by the uniformity in the same school or system for grades 3-11, but only in part. The full grammar-school schedule begins with the first grade in five schools or systems, with the second grade in four, the third grade in 16, the fourth grade in five, the fifth in five, and the sixth in four. Only six high schools (five in separate buildings) vary at all from the full grammar school schedule, and they average twelve minutes less school and eight minutes less recess.

Half-day schedules are not reported for grades beyond the fourth. In the third grade three morning sections average 185 minutes of school and twelve minutes of recess; four afternoon sections average 170 and ten minutes respectively. In the fourth grade two morning sections average 157 minutes of school and twelve minutes of recess; one afternoon section has 120 and ten minutes respectively.

The distribution of the recess time has little uniformity. Nearly all of the half-day classes in the morning have one recess of ten or fifteen minutes, coming near the center of their schedule but often varying somewhat to coincide with the first recess of the full-session day. The afternoon sessions are shorter and may need less recess, but it is inadvisable to omit this period altogether, even when not included in the full schedule of the school. However, the complaint is often justified that marching in the halls and play on small school grounds disturb the other children at work. This is one phase of a more general problem, that of having recess periods, like arithmetic periods, thru the day, especially when the school has much-needed teaching of games, light exercises, etc. By arrangement of rooms and exits for specific classes or divisions, by tiptoe marching in halls, and by use of play space some distance from the school, this difficulty could be met. It is about the only way of getting full use of limited outdoor, or even indoor, playgrounds.

The first recess in a full schedule comes from 10:15 to 11:10, generally at 10:30, and lasts from ten to twenty minutes—ten in 25 schools or systems, fifteen in eleven, and twenty in four. The length of this recess does not vary inversely as the variations in the second, or long, recess. The third recess comes from 1:55 to 2:40, the time varying in relation to the time of dismissal from 3:00 on, and lasts for ten minutes. The first recess is omitted in six high schools, and the third recess in 27 elementary and 32 high schools.

Nearly all the schools have *gross* recesses, the two or three minutes required to get hats and wraps and to march out being taken from the

\*For regulation of the school day by other States, see Hood's Digest of State Laws Relating to Public Education, pp. 441, 510-15.

recess time; but the minutes required to form in line, return to rooms, and settle down to work again are generally taken from the following class period. All recesses of less than fifteen minutes should be *net*, and the schedule should allow at least five minutes more for getting out and in.

The second recess is the pivot on which the school day turns. The dispute as to the one or two-session day is primarily a matter of this recess. In Europe the period is generally 120 minutes or more and really makes two-sessions, so the discussion of a change to "undivided instruction" is important; but in America the period is generally 60 minutes or less and is really a long recess in a one-session day.

In the schools or systems here studied this recess begins from 11:43 to 1:15, depending (a) on the time of opening school (8:45 to 9:00) and of dismissal (2:15 to 4:00), and (b) on the time for other recesses. The amount of the second recess varies from fifteen to 70 minutes, eight schools having 30 and nineteen having 60 minutes. There are 30 schools or systems with 35 minutes or more, and fourteen with 30 minutes or less, some schools varying from others in the same system.

Where shall the line be drawn between a one and a two-session day? It would be arbitrary, tho sometimes convenient, to make 30 minutes the point of demarcation. As will be shown later, the eating of lunch at school or at home is almost universal at this period and cannot be made a distinguishing characteristic. Some city schools, especially high schools, shorten this period, primarily on account of little room for play.

Altogether, it seems best to deal with the problem of this recess as a matter of minutes, rather than as a dividing line. If a large percentage of children can and wish to go home, the time should be made sufficient for the journey and the home meal; if there is space for genuine play for most of the students, the time should be made sufficient for more than tidbit playing; if there is little other opportunity during the day for social recreation, as in many rural schools, the time should be made sufficient for such an essential. In fact, the noon recess can be made the climax of educational opportunities.

Definite relaxation periods between recitations are reported only from two primary schools, tho similar breaks in the routine are probably customary in others. And the change of classes, and especially of rooms, furnishes a little relief for the older children. The German "pauses" of ten or fifteen minutes an hour are more like relaxation periods during change of classes than what American recesses are or ought to be. In addition to these recesses two or more relaxation periods of about five minutes each would well be worth the time both for the younger and the older children. These little periods could be differently used in the classrooms according to grade and be varied from day to day for the same class, with conversation, singing, marching, games, stories, etc.

#### Suggested Length of School Day.

It is impossible to make suggestions that would suit all the schools here represented, with their different internal and external conditions. As mentioned before, the amount and distribution of the total school time are influenced by many of these conditions; and, in turn, the amount and distribution of recess time are conditioned by the length of the school day. But the author is led by his knowledge of the general conditions in the schools here represented, which are probably similar to those in other states, to suggest a schedule subject to local

modifications. A comparison with the data just given will show that there is nothing radical in this schedule.

Starting with the first grade, the total school time should increase by more or less equal degrees until a school maximum is reached in the grammar grades, preferably the sixth. The prevalent custom of increasing unevenly up to the second, *third*, or fourth grade and then jumping to a maximum has nothing to commend it. The child makes no corresponding jump in physical or mental growth at this time; the school does not, or certainly should not, have such a sudden increase in instructional requirements; and there is no parallel change in the home and social life of the children. Gradual development of school child, of school requirements, of school time—mutually consistent with each other; this is the desideratum.

The excuse from some rural and semi-rural schools, that the younger children must be kept in school until their older brothers and sisters can go home with them, has only limited application. It has been found in actual practice that most of the younger children get home without difficulty, if they are dismissed early, and that the few remaining at school (especially to wait for school wagons) can play quietly on the school grounds or, in bad weather, can read or amuse themselves quietly in some supervised room. Their teachers and their classrooms can generally be used for departmental instruction of upper-grade divisions and thus relieve the congestion of work therein.

If the school day lasts three hours in the first grade, with children varying around 6½ years of age, and should increase one-half hour each year, it would reach five and one-half hours in the sixth grade, with children varying around 13 years. This increase should not be continued on thru the elementary grades and into the high school, because the strains of puberty and adolescence render the older students unable to bear increased strains of school work and confinement. And the older children can profitably spend more time out of school in preparation or in other educational interests. However, a shorter school day for the high school than for the grammar grades seems an extreme application of this principle; secondary school boys and girls ought to get without strain as much or more profit out of the maximum school time. Thruout the school, individual cases of chronic or temporary inability to stay in school without injury for the full time required can be met by special reduction, tho such excuses may easily be abused.

An increase of fifteen minutes each year, or 30 minutes every other year, from the fifth to a maximum of one hour in the eighth grade (the first year in Virginia high schools) could be added to the total school time to allow more preparation of lessons in school under supervision and thus decrease the time for home study. It is to be doubted whether the length of the school day should be thus extended beyond a total of six and one-half hours, even in the high school. Time must be left for the exercise, recreation, home associations, social relations, and individual pursuits of the out-of-school life.

This paper does not recommend an all-day school, extending until the late afternoon and including many of these out-of-school activities. Altho the schools in some industrial centers and in the comparatively disadvantaged parts of great cities may have to supply to children a home and social life they could not otherwise get, there is at present no evidence that an approach to a modified Spartan barrack system for children is needed in most American urban and

rural communities to replace and reduce, rather than increase, home responsibilities in the afternoon.

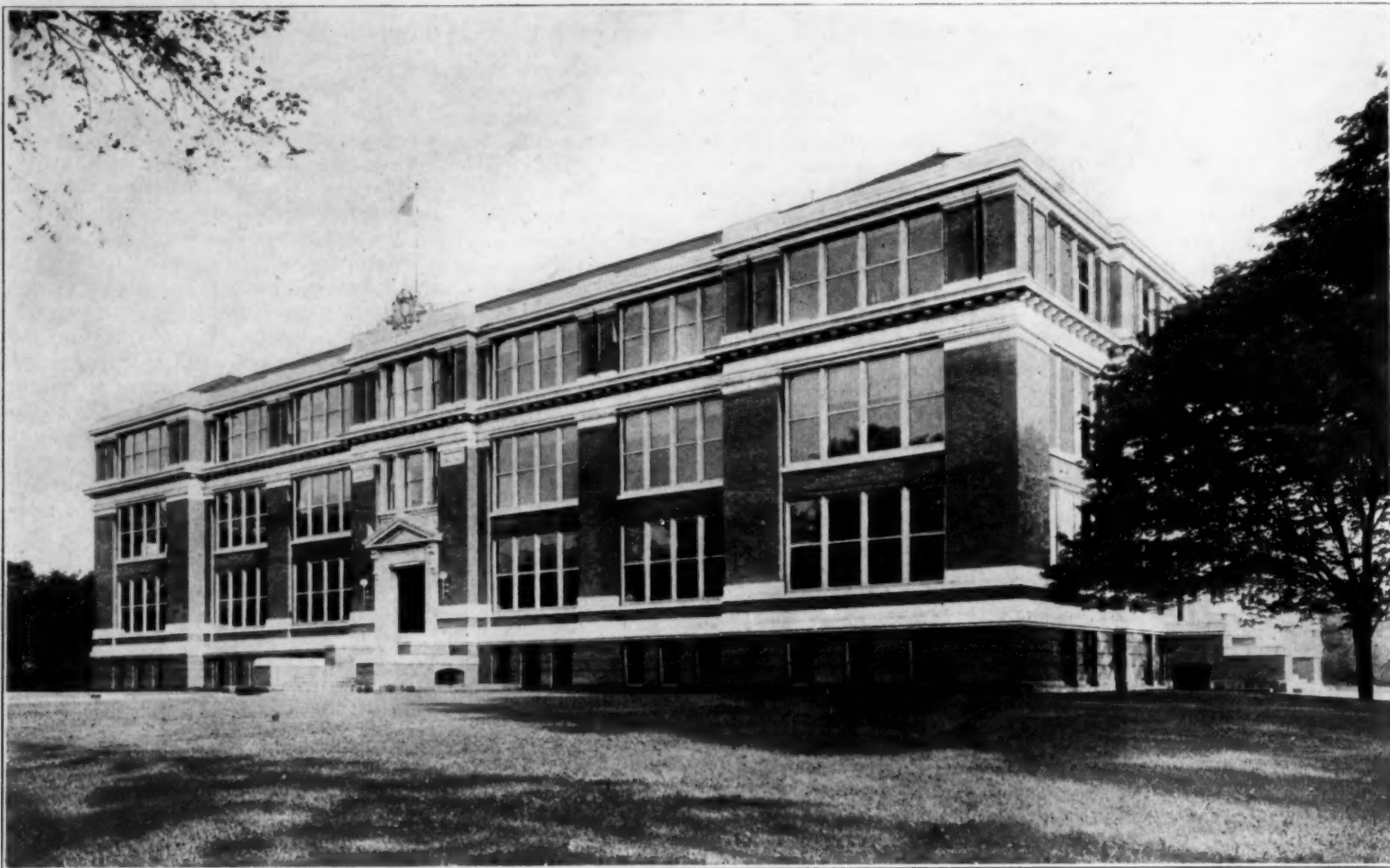
#### Suggested Schedule of Recesses.

On the basis of the total school time here mentioned, theoretical calculation of the total recess time could be made. Starting with twenty minutes for the first grade, the recess time could be increased by ten minutes for every half hour of total school time. This would give a maximum of 70 minutes, or 21 per cent, of the five and one-half hours in the sixth and higher grades, one minute of recess being given for every 3.7 minutes of school work. For every fifteen minutes of study added there could be five minutes more of recess, making a maximum of 90 minutes, or 23 per cent, for six and one-half hours and of one minute of recess for every 3.3 minutes of school work. Thruout this schedule the proportion of time devoted to recess becomes larger as the total school time increases. But this theoretical calculation partially fails before the problem of distribution of the recess time in the earlier grades. The increases per grade up thru the sixth would make combined recesses almost impossible and would cause confusion in most schools thru the exit and re-entrance of individual classes thruout the day. However, this difficulty would not apply to the sixth and higher grades with a short recess from 10:40-11:00 and a long recess from 12:30-1:20. Such a schedule would give 1 2/3 hours of school work from the opening of school at 9:00 until the first recess, then 1½ hours until the second recess, and then 1 1/6 hours until dismissal at 2:30—the intervals of work decreasing by ten and twenty minutes, respectively, as the school day advances. Of course, an earlier opening of school would not affect the proportions of this schedule. A compromise for the sake of easy organization could be made in case of the earlier grades by letting the entire school have recess from 10:40-11:00, by dismissing the third grade along with the second at 12:30, and by giving the fourth and fifth grades the recess from 12:30-1:20 and dismissing both at 2:00. With this schedule all recesses would be at the same time and no class would be kept at work when the play of others might cause distraction. If this distraction is not a local problem, the third grade could be held until 1:00 (or 12:45 on account of insufficient previous recess); the fourth grade could be brought in from the second recess at 1:00 and dismissed at 1:30; and the fifth grade could be brought in even at 1:10 and dismissed at 2:00. In case of increased length of school day thru additional study time from the fifth grade up, the second recess could well be given from 12:00 to 12:50 (with rearrangements for lower grades) and a third recess added from 2:10 to 2:25 for the sixth and later grades. The extra 15 minutes of recess would serve as a compromise for the 10-20 minutes suggested.

If a large percentage of the children go home at the second recess for luncheon or dinner, fifteen, or preferably 30, minutes should be added to the suggested allowance of 50 minutes. The additional time should be added to the total school day, without changing the above-mentioned intervals of school work, and postpone to that extent the dismissal of the grades concerned. Such an extension could be made temporarily or permanently for purposes of extra play or social recreation.

A great difficulty in all schedules is the length of recitation periods, especially in the high schools with their unit credits for periods of 40 minutes. It would be better to work out first a satisfactory schedule for the school work as a whole and for the recesses, and then try to adapt the periods to this schedule, rather than *vice*

(Continued on Page 69)



HIGH SCHOOL, NEW CASTLE, PA.

W. G. Eckles, Architect, New Castle, Pa.

## Recent School Buildings in Pennsylvania and Ohio

The Work of W. G. Eckles, Architect, New Castle, Pa.

The modern school architect who is doing really satisfactory work is an able member of his profession and much credit is due him for his resourcefulness, artistic ability and practical insight into building design and construction. This should be especially true of the architect who is located in the small city and who finds most of his work in small cities. While the designer of large city schools has a free hand and generous appropriations, the designer of the small school must contend with economy that conditions impose.

An architect who has not overlooked the essential elements of good schoolhouse architecture in everyday practice, and has striven to produce buildings which are satisfactory from every point of view, is W. G. Eckles of New Castle, Pa. The examples here shown are typical of high-school construction in Pennsylvania and Ohio and are noteworthy for a number of very successful ideas which have been worked out with unusual care. Special attention has been given to compactness and careful planning to the end that there may be effected a saving in the amount of materials used and a substantial reduction in the cost of labor.

The increased cost of materials and labor has made it necessary for school architects to plan more economically and efficiently with the funds at hand in order to meet the new conditions, and it will no doubt mean modifications in the actual planning and building operations. The buildings illustrated in these pages should prove helpful to school boards who are about to undertake new buildings.

### The New Castle High School.

The New Castle High School building, which was completed in 1911, represents an earlier type of plan which Mr. Eckles has since greatly refined and condensed. The building has three stories and basement and is of fireproof construction, with an exterior of rough textured brick and enameled terra cotta trim. The build-

ing is 200 feet by 150 feet, has 62 classrooms, a gymnasium and an auditorium which seats 1,200 persons. It is planned on generous lines with wide corridors and ample stairways. The auditorium and the main corridor are finished in formal style with plaster mouldings and cornices. All rooms in the building have unilateral

light and the corridors and auditorium receive direct light from two large inner courts. The auditorium has a ceiling light of art glass measuring 650 square feet.

The building is planned so that the ground floor will be used for general school purposes. It is well set out of the ground and has full length



Auditorium, High School, New Castle, Pa.

windows. Access to the basement where the locker rooms are also located is by means of entrances under the main approaches on the front and sides.

Originally it was not intended that the building should contain shops for manual training or laboratories for domestic science. These have since been arranged for on the ground floor.

The building is equipped with a complete students' lunchroom and kitchen, pantries and refrigerating space. The lunchroom has been a pronounced success during the past three years.

The heating and ventilating system is a double fan system arranged with two plenum fans in the basement and two suction fans in the attic space. The power plant is composed of three 100 H. P. boilers operated with automatic stokers.

The equipment includes an interior telephone system and a complete program clock. The building accommodates 1,000 students and has a capacity for 200 more. It cost including all science equipment, but not including movable furniture, \$225,000.

#### The Butler High School.

The Butler High School, which is in process of construction, measures approximately 300 feet by 200 feet, and will contain fifty odd classrooms each with a separate cloakroom, drinking fountain, teacher's wardrobe and bookcase.

In addition to the regular classrooms the building will have a number of special rooms especially planned for community as well as school use.

On the ground floor there will be a cafeteria finished in rather formal style with ornamental plaster and cornices, and arranged with very large complete kitchens and store rooms for food. The room is to serve as a high school lunchroom and is to be open to the public for banquets and public gatherings.

The auditorium is located on the intermediate floor. It will have a capacity of 1,200 sittings, and will have special exit facilities for handling large bodies of pupils as well as adult audiences outside school hours. The stage, which is arranged on the level of the rear corridors, is unusually large and special provision is made for an orchestra pit lowered sufficiently so as not to obstruct the line of vision.

The gymnasium is also located on the intermediate floor on the same level as the auditorium. It has separate entrances from the rear street so that it may be used independently, if desired, of the rest of the building. It is equipped with balconies on four sides so that it may be used for athletic meets and may serve as an auditorium as well.

The shower and locker rooms for the gymnasium are on the ground floor and are especially ample. The boys' showers are in the form of a corridor with graduated showers of varying temperatures. The girls' showers are arranged with marble shower compartments surrounded on the four sides by dressing booths opening immediately into the shower compartments. A swimming pool is located adjoining the shower rooms.

The building has a steam heating and ventilating plant. The ventilating ducts are in underground concrete tunnels so that the ground floor is free of all piping. Automatic stokers and gravity conveyors are provided for the fuel.

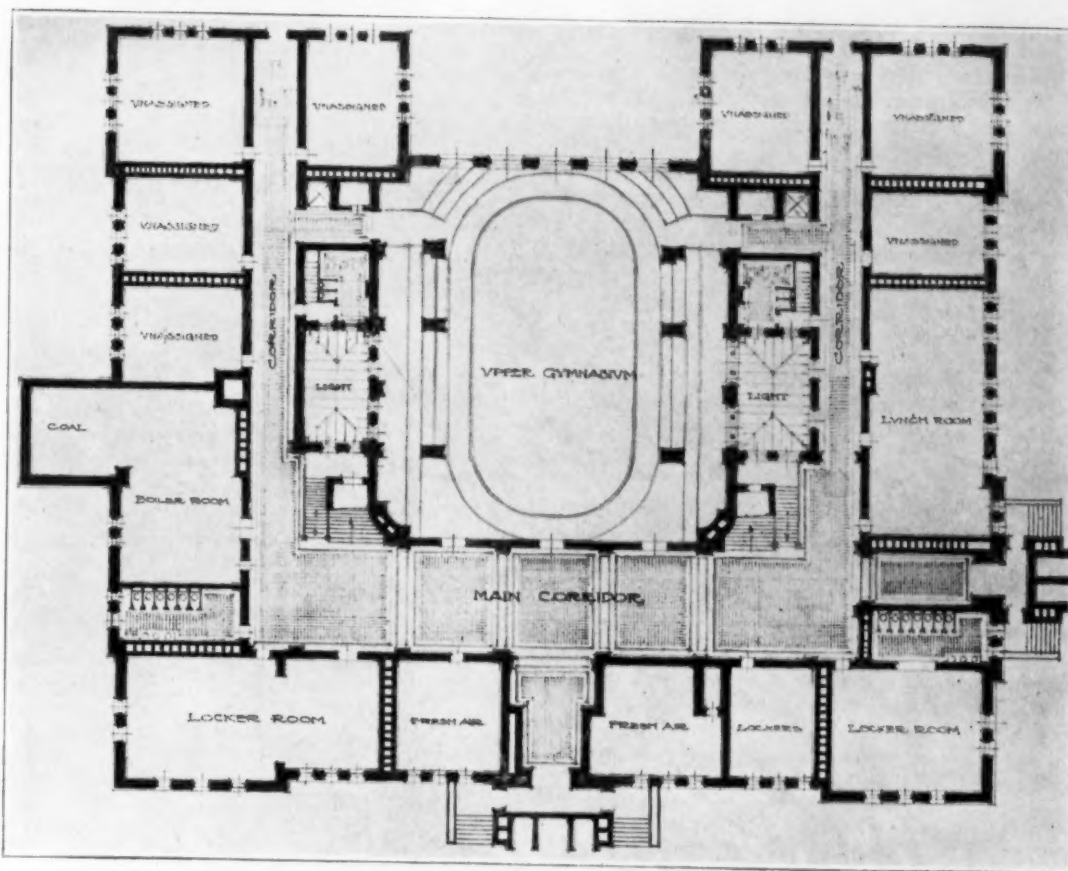
The building is being erected with exterior walls of rough textured brick and Indiana lime stone trimmings. It will be finished with metal doors, oak trim and tile floors in the corridors. It will cost approximately \$500,000.

#### The Natrona High School.

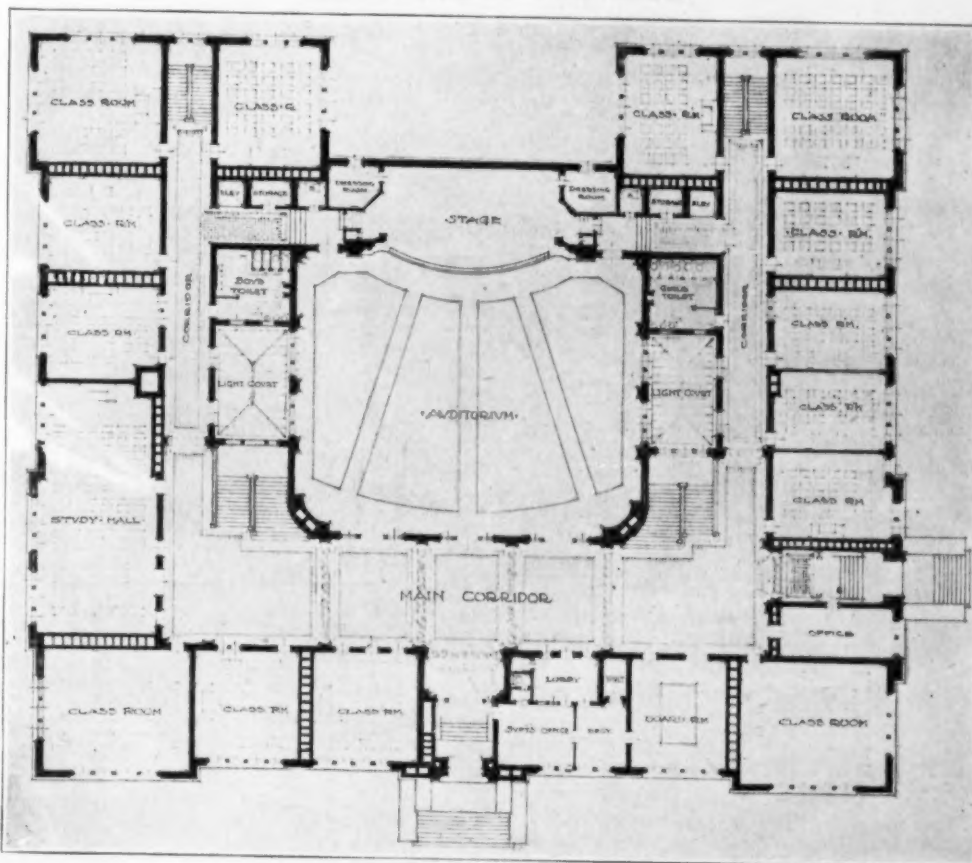
This building is planned for a small industrial town having a considerable foreign population, and is intended to accommodate some grade school work in addition to the high school and the vocational schools.

There are eleven classrooms on the first and second floors besides the office, library and toilet rooms. In the basement there is a combination auditorium and gymnasium, equipped with spectators' gallery, stage, and footlights. There are also a manual training room, a domestic science room, shower and locker rooms.

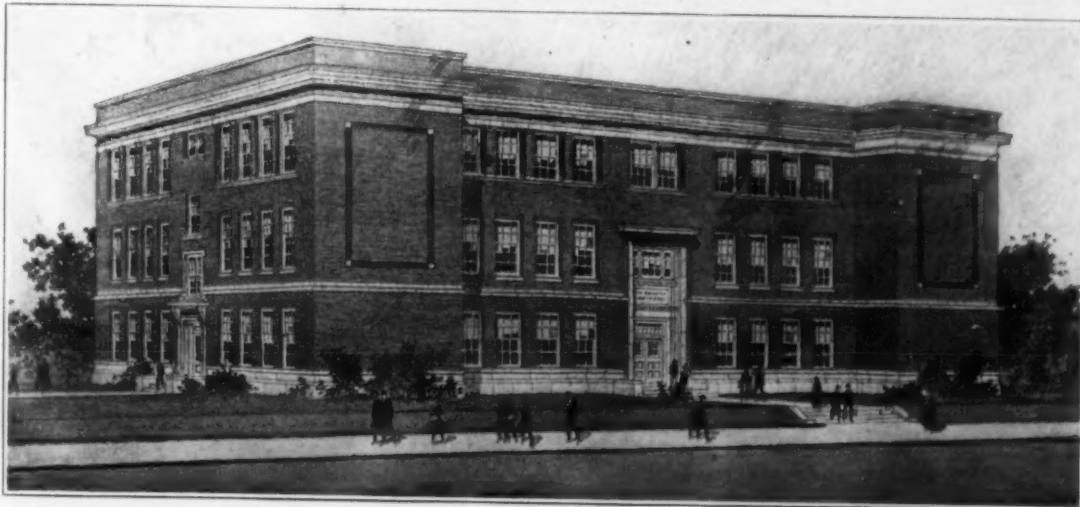
The building is heated and ventilated by an



Basement Plan, High School, New Castle, Pa.



First Floor Plan, High School, New Castle, Pa.



High School, New Brighton, Pa. W. G. Eckles, Architect, New Castle, Pa.

indirect single fan system with automatic heat regulation.

The entire building is fireproof, with oak finish, terrazzo floors in all corridors and toilet rooms, rough textured brick and Ohio sandstone trim.

The building was erected during 1915, at a cost complete, including all furnishings and equipment, of \$45,000.

#### The Connellsville High School Building.

The Connellsville High School has 33 classrooms in addition to the special departments, auditorium, gymnasium, kitchen, offices and swimming pool. It is entirely fireproof, including the roof construction, and is finished with oak trim, tile floors in all corridors and toilet rooms. The swimming pool, which measures 20 feet by 60 feet, is lined with tile. Marble partitions are provided in the toilets and showers. The building is heated by means of a single-fan, indirect steam plant with automatic regulation.

The exterior is built of rough textured brick in mixed shades and Indiana limestone trimmings. The building has been planned to provide for use as a social center. The auditorium stage has special exits for choruses and theatricals. The gymnasium may be used as a banquet hall and has adjoining it a well equipped kitchen. The swimming pool and the gymnasium have independent entrances from the rear so that they may be used at night without disturbing the remainder of the building.

Especially liberal provisions have been made for manual training, domestic science and general science.

The building is to be completed September 1, and will cost, with all equipment for the science departments, with wall decorations, stage scenery, program clock, seating, window shades and outside walks, approximately \$200,000.

#### The New Brighton High School.

The New Brighton High School is a very compact school of moderate size and of fireproof construction. It is faced with red brick and stone trimming and has tile corridors, oak finish and indirect single fan heating and ventilating system. It includes an auditorium, gymnasium, science department and rooms for domestic science and manual training.

The building is still under construction and will cost \$130,000.

#### The Niles High School.

The Niles High School is located across the street from the new National McKinley Memorial Building and harmonizes with this structure. It is three stories high and is built of fireproof materials with white vitrified brick, Indiana limestone and terra cotta exterior.

The building is of very substantial construction thruout, and is especially well equipped in the science, manual training and household arts departments. It accommodates the general offices of the Niles School Board on the first floor and has separate offices for the principal and rooms for the teachers on the second floor.

The gymnasium is located on the main floor with spectators' gallery, boys' and girls' shower and locker rooms, and a large tile lined swimming pool and showers on the same level.

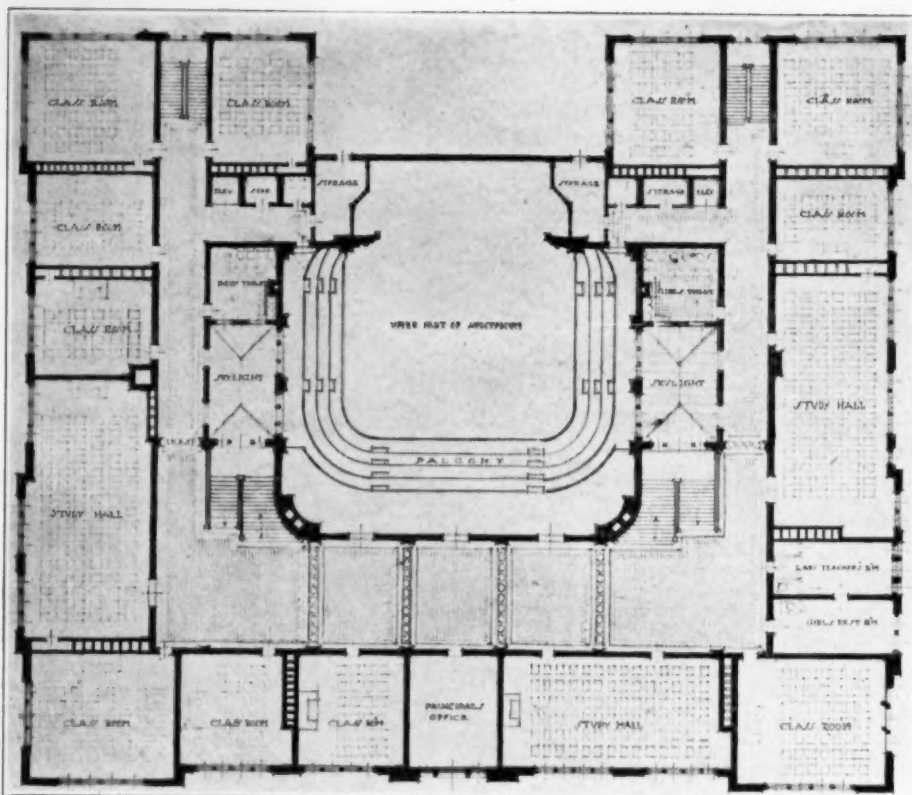
The space over the gymnasium is occupied by the auditorium which is supplied with a balcony, a large stage completely equipped with curtain, scenery, foot lights, border lights, etc. The auditorium has a capacity of 850 sittings.

Special exits to the grade at the rear of the building are arranged for the auditorium, the stage, the locker rooms, and the gymnasium. The building also has four separate stairways enclosed in fireproof enclosures with fire doors on each floor.

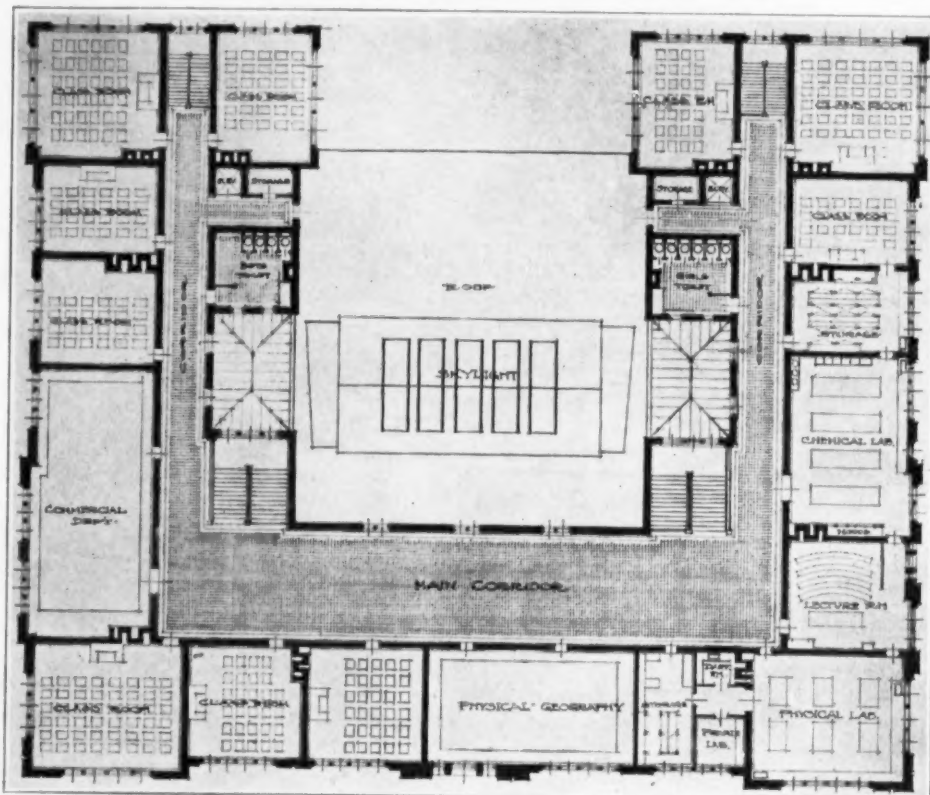
The building is finished with tile floors in the corridors and toilets, oak trim thruout and slate blackboards. The building has indirect lighting fixtures, an interior telephone system and a complete program clock. It is equipped with smokeless boilers supplying power to an indirect steam heating and ventilating plant.

A special feature of the building is the concrete-and-steel open playhouse enclosed with wire screening and located in the rear. This playhouse is 45 feet by 90 feet, supported on 24

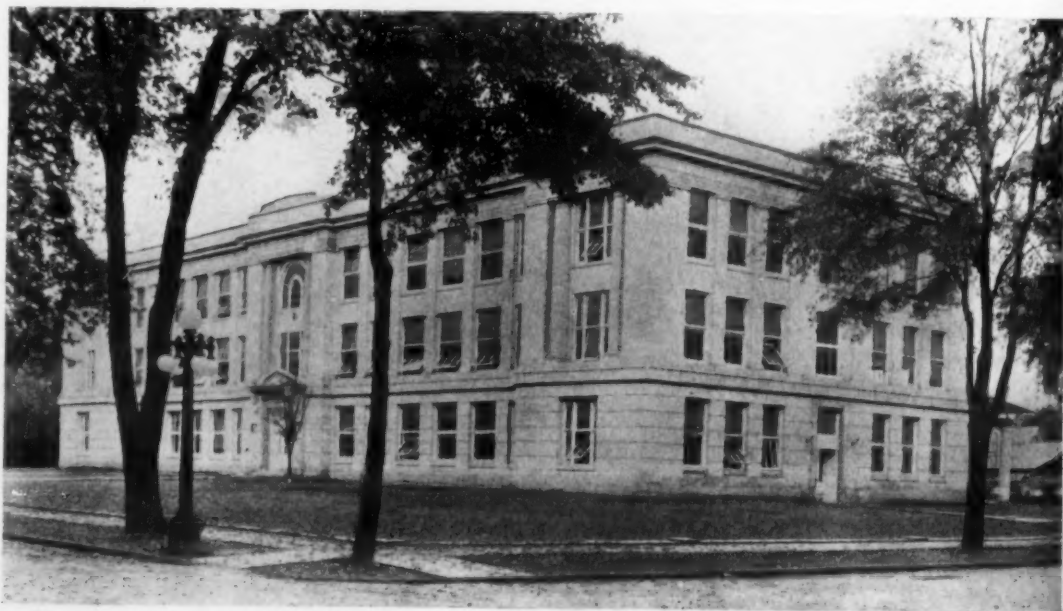
## School Board Journal



Second Floor Plan, High School, New Castle, Pa.



Third Floor Plan, High School, New Castle, Pa.



High School, Niles, Ohio. W. G. Eckles, Architect, New Castle, Pa.



HIGH SCHOOL, BUTLER, PA.

reinforced concrete columns, (18 feet high, 3 feet in diameter) and with a steel trussed roof. The interior of the wire enclosed playhouse is covered with sand for the play floor. This feature has proven very successful and is constantly used. The use of the playhouse eliminates the features of dust and other objections that accompany the use of interior playgrounds.

The building was completed in 1915, and cost complete with the playhouse, decorations, stage scenery, science apparatus, etc., \$150,000.

#### AN EDUCATIONAL PROGRAM FOR THE WAR.

Suggestions for a program of school activity for different types of educational institutions during the war have just been issued by Dr. P. P. Claxton, United States Commissioner of Education. After pointing out that attendance laws should be enforced as usual, Dr. Claxton says:

"Parents should be encouraged to make all possible efforts to keep their children in school and should have public or private help when they cannot do so without it. Many young children will lack the home care given them in times of peace, and there will be need of many more kindergartens and Montessori schools than we now have.

#### Larger High School Attendance.

"The attendance in the high schools should be increased, and more boys and girls should be induced to remain until their course is completed. A school year of four terms of 12 weeks each is recommended for the high schools, as for the elementary schools. In the high schools adopting this plan arrangements should be made for half-time attendance, according to the Fitchburg, Cincinnati, and Spartanburg, S. C., plans, for as large proportion of pupils as possible.

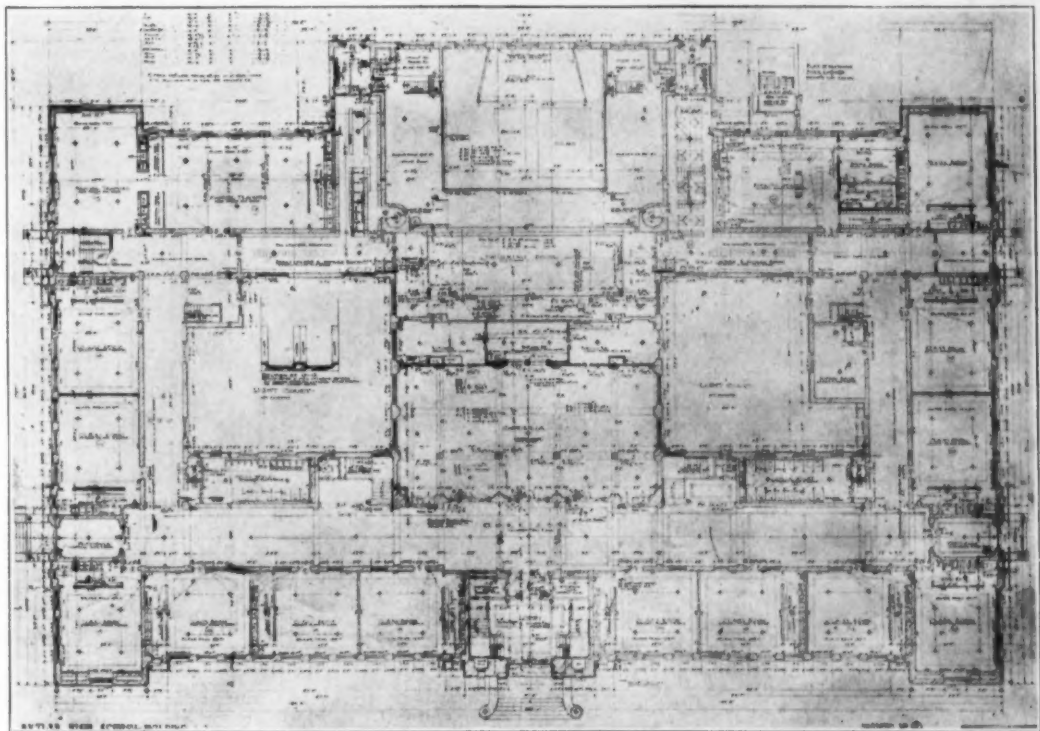
"All laboratories and manual-training shops in high schools should be run at their full capacity. In many of the shops work should be done which will have immediate value for the national defense.

"In all high schools in which domestic science (sewing, cooking, sanitation, etc.) is taught, large units of time should be given in the summer and fall to sewing for the Red Cross and for local charities.

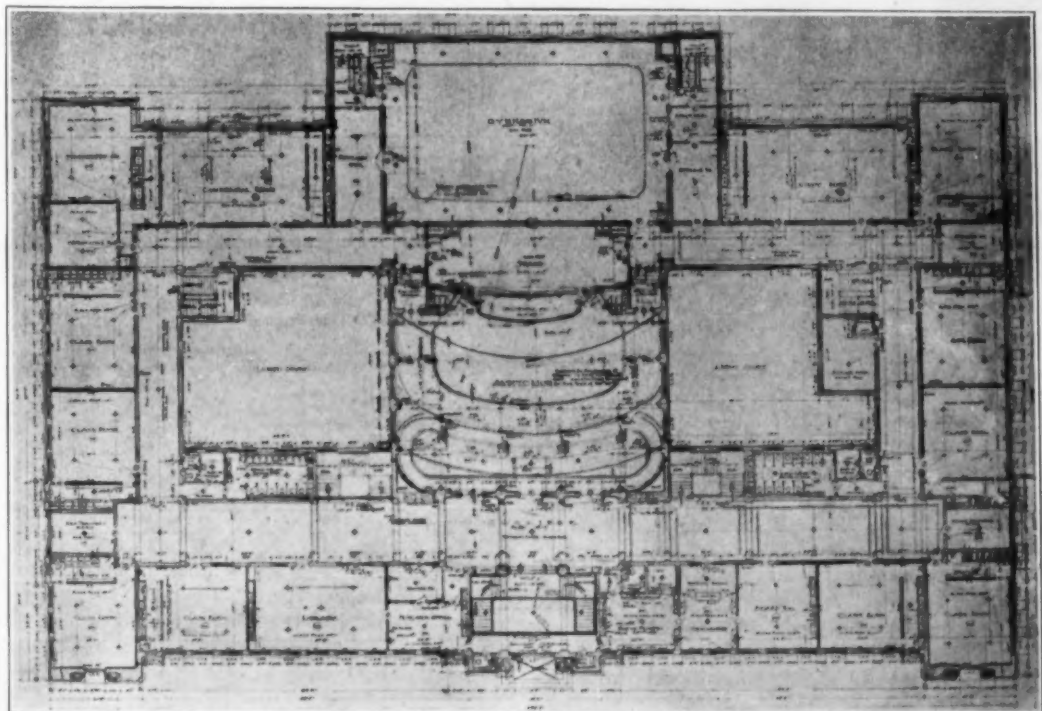
"Classes for grown-up women should be formed in which practical instruction can be given largely by lecture and demonstration in the conservation and economic use of food,

#### Continuation Schools and Evening Schools.

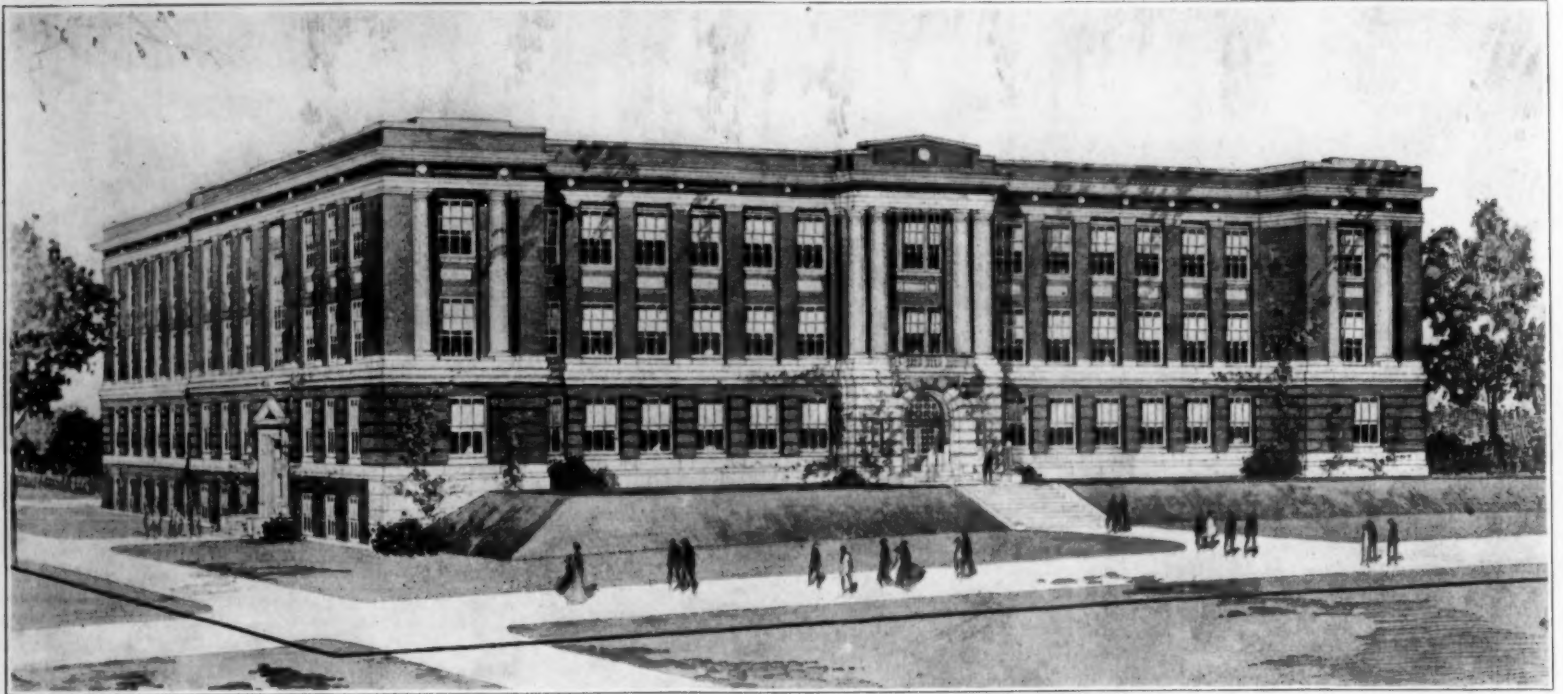
"For all boys and girls who cannot attend the day sessions of the high schools, continuation classes should be formed, to meet at such times as may be arranged during working hours or in the evening. All cities should maintain evening schools for adult men and women. In cities having considerable numbers of immigrants, evening schools should be maintained for them with classes in English, in civics, and such other subjects as will be helpful to these foreigners in understanding our industrial, social, civic, and political life.



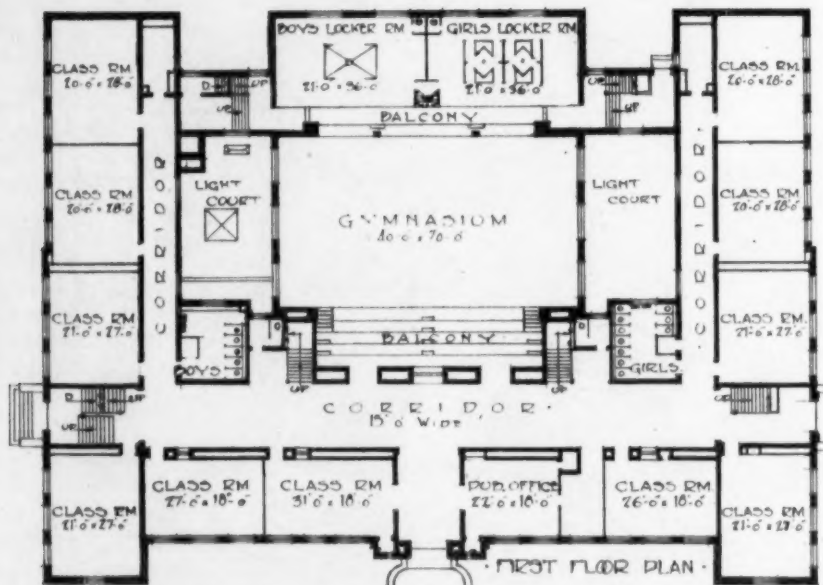
First Floor Plan, High School, Butler, Pa.



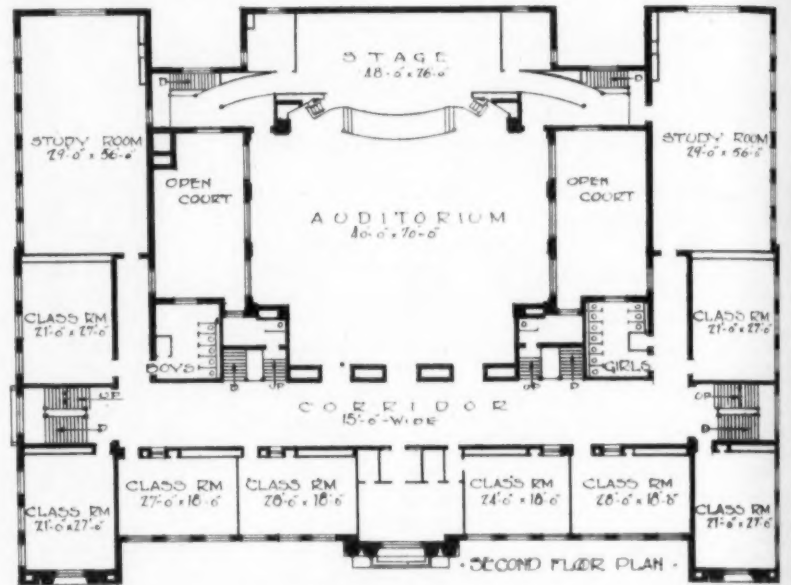
Second Floor Plan, High School, Butler, Pa.



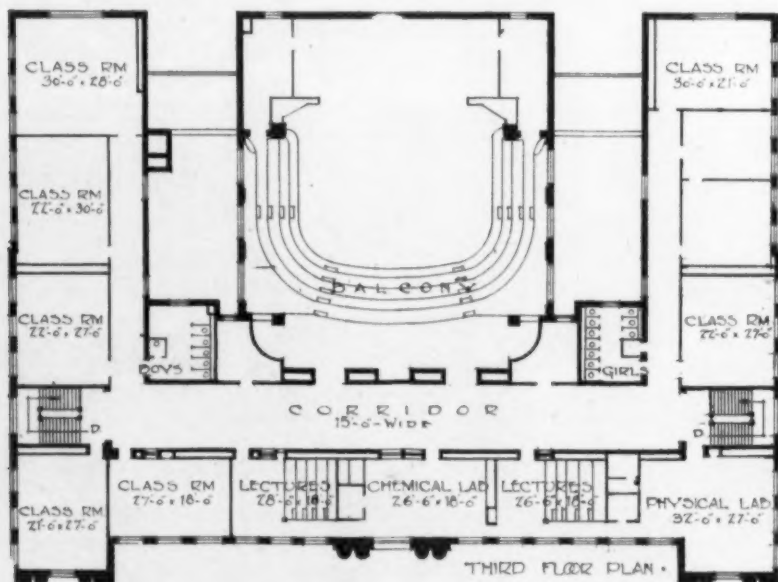
HIGH SCHOOL, CONNELLSVILLE, PA.  
W. G. Eckles, Architect, New Castle, Pa.



First Floor Plan, High School, Connellsville, Pa.



Second Floor Plan, High School, Connellsville, Pa.



Third Floor Plan, High School, Connellsville, Pa.

#### Strengthening the Normal Schools.

"In few States is the supply of broadly educated and well-trained teachers equal to the demand. The normal schools should double their energies and use all their funds in the most economic way for the work of preparing teachers. Appropriations for the support of normal schools should be largely increased, as should also the

attendance of men and women preparing for service as teachers.

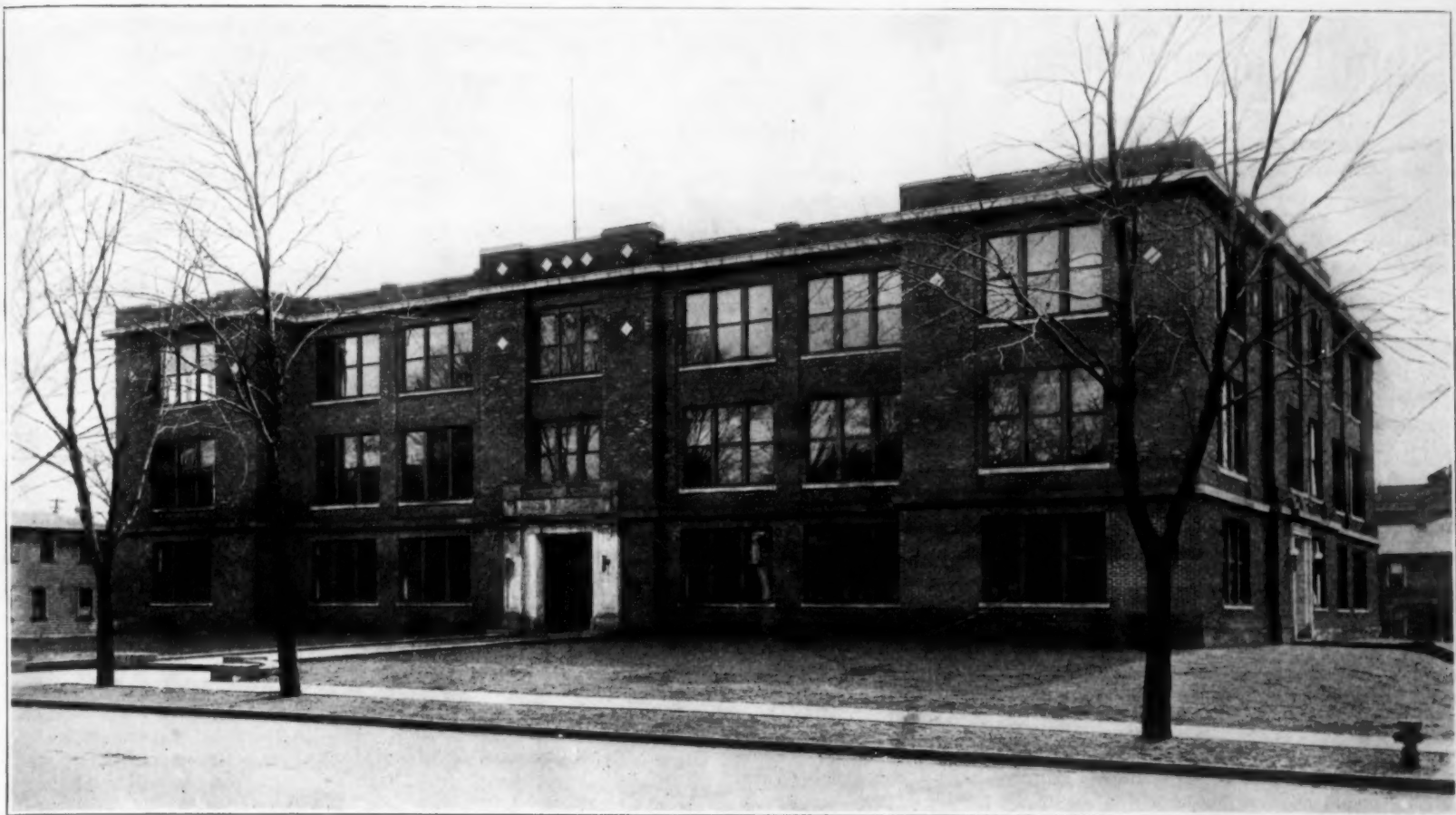
#### More Work for the Colleges and Universities.

"The number of students in colleges, universities, and technical schools should increase rather than diminish. Many of the older and upper class men will volunteer for some branch of the military service, but all young men below

the age of liability to selective draft and those not recommended for special service should be urged to remain and take full advantage of the opportunities offered by the colleges, universities, and technical schools, to the end that they may be able to render the most effective service in the later years of the war and the times of need that will follow. Practically all women students should remain, and all boys and girls graduating from high schools should be urged to enter college, technical school, or normal school.

"All students should be made to understand that it is their duty to give to their country and to the world the best and fullest possible measure of service, and that both will need more than they will get of that high type of service which only men and women of the best education and training can give. Patriotism and the desire to serve humanity may require of these young men and women the exercise of that very high type of self-restraint that will keep them to their tasks of preparation until the time comes when they can render service which cannot be rendered by others.

"In agricultural colleges special intensive courses should be given to prepare teachers, directors, and supervisors of agriculture and practical farm superintendents. It should be remembered that the scientific knowledge and the supervising and directing skill of these men and their ability to increase the productive capacity of thousands of men of less knowledge and skill are far more valuable than the work



HIGH SCHOOL, TITUSVILLE, PA.  
W. G. Eckles, Architect, New Castle, Pa.

they can do as farm hands. The total number of agricultural students in all colleges is only a fraction more than one-tenth of one per cent of the total number of persons engaged in agriculture, or about thirteen in 10,000—not enough to affect materially the agricultural production of the country by their labor, but enough to affect it immensely by their directive power when their college courses have been finished.

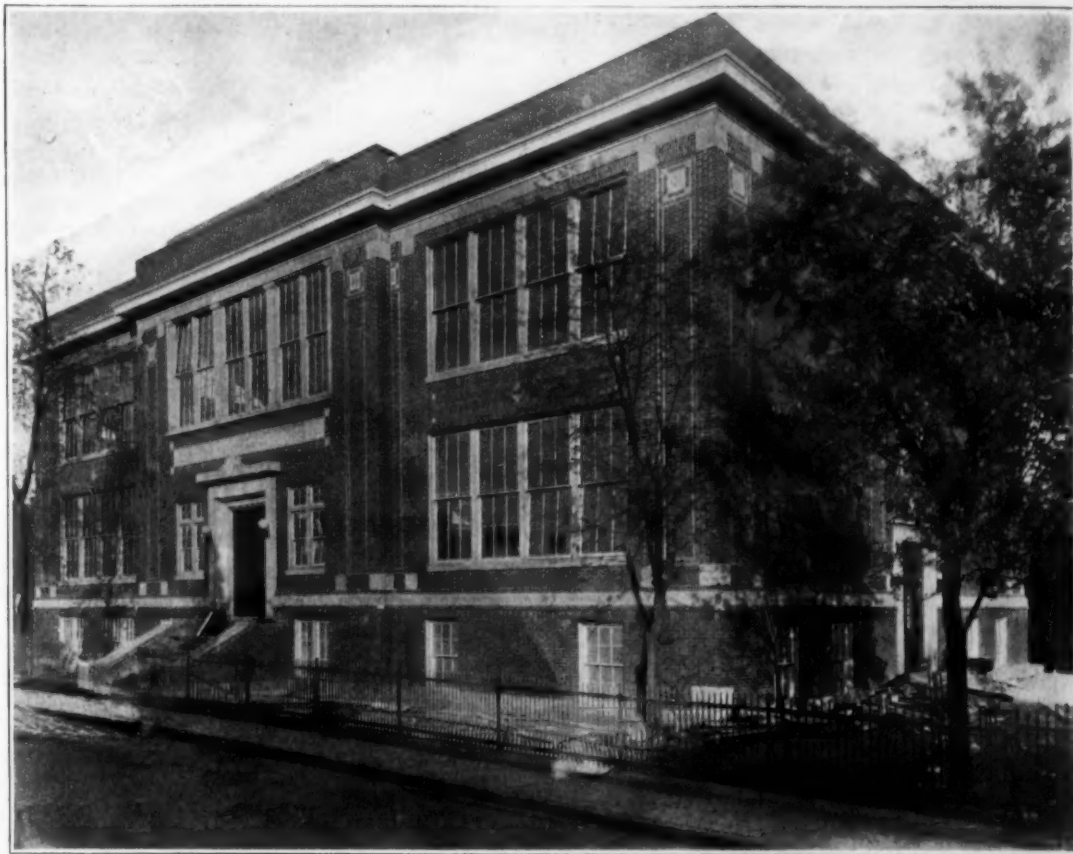
"No college, university, or technical school that can avoid it should permit its faculty or student body to be scattered or its energies to be dissipated. All should redouble their energies and concentrate them on those things that will be of most service during the progress of the war and which will prepare their students for the most effective service of the country and of the world when the war is over."

#### TEACHERS AND ADMINISTRATION.

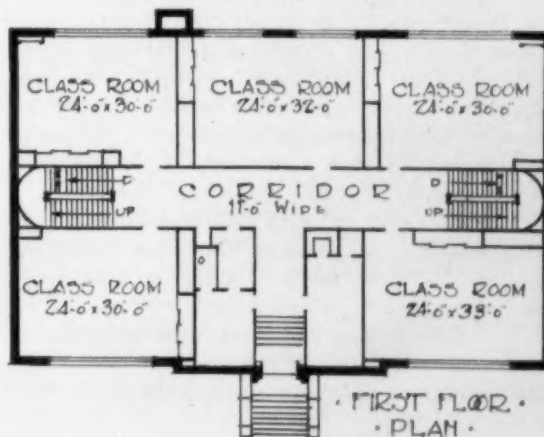
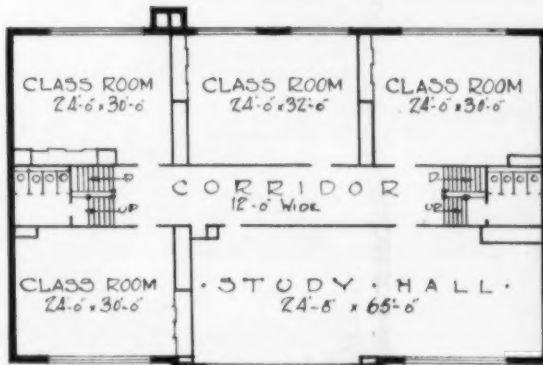
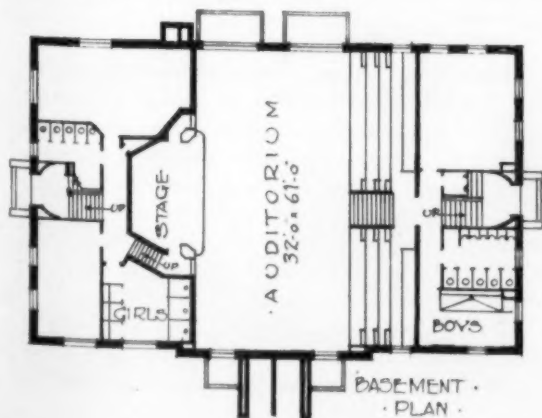
Dayton, O. The board has fixed the term of employment of teachers at four years.

Public school teachers of Meriden, Conn., numbering about 180 will lose approximately \$7,500 in the aggregate in salaries voted to them last month by the town school board. Some months ago the teachers were granted increases of \$10 per month but the town counsel has ruled that it is illegal to grant the increases.

The first retirements under the provisions of the New York Pension Law have occurred with the pensioning of 32 members of the teaching and supervising staff who have reached their seventieth year and who will automatically go on the pension roll. Applications for retirement from those who are eligible under the age clause of 65 years or that of 35 years' service have been invited. It is estimated that some 124 teachers are eligible in the 65-year class.



High School, Natrona, Pa. W. G. Eckles, Architect, New Castle, Pa.



FLOOR PLANS, HIGH SCHOOL, NATRONA, PA.

# THE AMERICAN School Board Journal

DEVOTED TO  
Legislative and Executive School Officials  
WILLIAM C. BRUCE, Editor

## EDITORIAL

### A PRESENT DEMAND.

A pertinent suggestion for aiding the schools to perform their function during these troublesome times has been made by Mr. Wilford M. Talbert of Oakland, Cal. He recommends that the several states create school efficiency bureaus and that these be entrusted with the work of cost and child accounting so that the administration of the schools may be placed on a fact basis. He points out that public business suffers much because it is not guided by absolute facts as discovered by scientific management, but is dependent largely upon opinions of public officials and the dictates of the electorate. There is need for specific information on the part of those entrusted with the administration of the schools:

(a) To show the needs on the one hand and the extravagance on the other of the present methods.

(b) To show the success or failure of policies which have not been established as scientifically correct.

(c) To point the way to new policies.

(d) To establish a basis for intelligent public discussion of school affairs.

He recommends that the efficiency bureaus collect three types of information:

1. Statistics, analyzed in the light of the purpose for which gathered, and made intelligible to the persons who need the facts.

2. Descriptive reports, where figures are inadequate.

3. Pictures, charts, plans, specifications, etc., illustrative of the first two classes of facts.

The information which such a bureau would collect might be classified, in general, as cost accounting to analyze the costs in the several units of school government so that relations might be shown and inequalities corrected. The costs would show the unit costs for buildings and equipment and indicate their relation to the educational products. It would be possible to so measure costs in terms of actual standards of results that both efficiency and waste would be discovered.

A second branch of the cost accounting would be termed "child accounting," and would seek to determine what proportion of the children in the state are in school; what the effect of the size of classes has been; the relation of the training and salary of teachers to the success of schools; what methods of teaching give the best results; what types of schools are most efficient, etc.

All of Mr. Talbert's suggestions have been carried out in part by different school systems in the larger cities and one or two of the states. There is, however, in no community and in no state a complete and well-organized efficiency department which can carry out in full all of the recommendations just mentioned. The early introduction of such a bureau is to be heartily recommended.

A great difficulty with superintendents and other school administrators lies in the fact that they are too close to their work and that they are not free from personal and political influences. They are not able to back away from their work and to view it in an impersonal scientific manner. They are so busy in initiating

new things and in doing the executive work of their offices that they cannot estimate the value or the failure of what they are undertaking. A bureau in charge of an expert, who is himself free from the necessity of doing administrative work, would supply this deficiency.

### TWO BUILDING POLICIES.

A school superintendent in explaining the high cost of a new grade school in his city declared that it had been the purpose of the school board to erect a structure that would be in keeping with its surroundings. The school, which served a residential section in which hardly a house represented an expenditure under five figures, was exceedingly ornate and in many respects extravagant. Its cost was far higher than that of any grade building in the community. In the same city there were schoolhouses which were incorrectly lighted and poorly ventilated and which had been the subject of adverse reports on the part of the fire department. The latter buildings were almost universally overcrowded and were all located in the poorest part of the town.

In a New Jersey city a large school building was completed and opened for service in September, 1916, in an "Italian Ward" where slum conditions exist. The building is a wonderfully effective bit of pure Italian renaissance design, carried out with all the grace and color of an Italian villa. It is a very complete structure, planned for community use and equipped with special play space, a pool, a gymnasium, an auditorium and shops. It is in the truest sense a civic center from an educational and artistic standpoint. In the city where this building stands it is the policy of the school board to make the schoolhouses in the poorest sections as good or just a little better than those in the fine residence neighborhoods.

It has always appeared to us that discrimination on the part of a school board between sections of a community is to be condemned as a gross violation of trust. If anything, the poorer sections of a city require more careful attention to equalize in a measure the social and personal disadvantages under which children and their parents struggle. If our schools stand for the fundamental democracy of our government then a square deal is the least which school boards can give all the people.

### CHICAGO'S ORGY.

The Chicago situation changes so rapidly and the disgraceful complications multiply so quickly that comment by other than a daily paper cannot be up-to-date or accurate. The second city of the United States stands alone in making its school system the spoils of the worst political elements, the bone of contention for any and every group of self-seeking gangsters and the plaything of unscrupulous, selfish elements. The decision of the circuit court in determining the legality of the "Thompson board" does not improve matters, altho it is likely that it will be sustained by the higher tribunals. According to the court, the city council could not reverse itself in its confirmation of the mayor's appointments, in view of its plain rules.

The old board, the judge held, was merely a department of the city, while the new board has powers conferred by the legislature under the new Otis law. The attempt of the old board to forestall the new one by selecting the officers in advance is called an act of dissension tending to disorganize, rather than reorganize, the board.

The worst feature of the Chicago situation is that no relief is in sight, that the fight must go on until the people can clean the slate thru legislative enactment before reforms are possible by means of the ballot.

A bare possibility exists that Chicago's next mayor will see in the school board an agency of the state that must be kept out of the maelstrom of political activity if the next generation is to be conserved. But even a new mayor can only hope to repair part of the evil. A law taking the appointing power out of the hands of the mayor, making the school board elective and requiring non-partisan choice of all candidates is the only hope for a true solution of the difficulty.

### AN OLD PRINCIPLE.

Supt. H. H. Baish of Altoona, Pa., resigned on July 7 rather than submit to a policy of the board of education by which the latter overrode the recommendation of a committee of principals and of the superintendent and adopted a textbook which the latter considered inferior.

Mr. Baish's courageous stand recalls a principle in school administration that is so self-evident that it needs only to be restated to be proven. The superintendent as the educational expert and chief executive of the school system must recommend the educational tools—textbooks—to be used in the schools, and in the absence of cogent reasons his recommendations are to be accepted by the lay school board.

In the present instance it may be asked why a superintendent and principals should be employed and paid for their knowledge and experience in conducting schools if a school board committee, at the dictate of a local politician and without further ado, refuses to even consider the recommendations of these men?

### WHICH IS BETTER?

Dr. William W. Theissen refers in a recent study of city school administration to two types of boards of education distinguished from each other by the adequate or inadequate information which they apply in determining so important a matter of school policy as the budget.

The first type "passes upon a budget containing ten items in lump sums, not knowing whether they represent the actual school needs in relation to the financial ability of the city or not."

The second type "passes upon a budget knowing just what proportion of its funds is to go for each of the different forms of service—administrative control, supervision, teaching, textbooks, fuel, supplies, janitor service, repairs." This board "knows how these proportions compare from building to building, from year to year or with similar items in other cities;—knows how these items compare in terms of pupil cost;—knows something of the reason for the difference in cost;—knows how large a burden may reasonably be placed upon the taxable wealth of the community in the light of what it must spend in other endeavors; and—knows whether or not it has secured ample returns from previous expenditures in the way of achievements."

Every school board member may ponder this description with benefit to his city. To which type does your board belong? If the former the present war year is the time for reform.

### INDECISION OF SCHOOL BOARDS.

Delay is the frequent cause of waste in educational administration. Postponement of action, and re-reference of matters for further consideration in committee, are powerful weapons which parliamentary courtesy has placed in the hands of minorities. But, if our observations are right, most delays in school business are due to dilatoriness and indecision on the part of school board members.

All public administration requires careful attention and due deliberation and it is not too much to ask that school executives as well as

laymen members of school boards give consideration to public opinion to supplement their own judgment. But deliberation does not imply delay and hesitation; nor is it necessary to listen to every selfish interest which may be affected.

School board members must be men and women of decision and courage. The latter quality is especially necessary. If a policy is right, or a project is necessary, it should be carried thru with dispatch. No little group of taxpayers, or contractors, or politicians should hold up business or attempt to dictate how it is to be done. The school board member who expects to serve his community and its children by being swayed and delayed by every breath of criticism had better resign.

#### SUPERVISION AND THE TEACHER.

Every school board member who is an employer of labor understands the value of good relations between the factory superintendent, the foremen and the workers. He appreciates the effect of friendly, enthusiastic supervision of an office force or a corps of draftsmen. He knows that chief clerks and heads of departments must be chosen for their ability to get the cheerful, willing co-operation of their assistants.

Schools no less than business houses and factories require good organization and cheerful, helpful supervision of the workers, the teachers. Mrs. Susan M. Dorsey, assistant superintendent of schools, Los Angeles, Cal., very well described the kind of supervision that is very much needed just now when she said:

"Supervision to liberate the teacher must be itself free and generous, given in a ungrudging, open-handed, at-any-time, at-any-place sort of a way. I recently heard of a supervisor of manual training who brusquely turned from his office a young teacher seeking help, with the remark that he was not giving individual instruction, that if she had wished to learn how to apply that particular finishing product she should have been present at his class at such an hour and place. Now it so happened that this young teacher belonged to a remote school and that on the evening when that particular lesson had been given she had been detained by a serious case of discipline beyond the hour of the supervisor's class. She had sought the needed assistance at the earliest possible moment so as not to delay the work of her class, only to meet a heart-breaking rebuff. Supervisors may be petty tyrants, not liberators. It all depends on the supervisor's tact, kindness and interest in his work and on his desire to have the utmost of technical and inspirational help reach the children thru the teacher. To liberate teachers, supervisors must be not military tacticians, not mechanical organizers, but courteous directors,

skillful suggestors, inspirational leaders, subtle path-finders.

"To secure freedom to the teacher there must be recognition on the part of the supervisor that the teacher is the administrative head of her class. Everything should be done in a courteous way to strengthen her authority and to increase the respect shown by pupils. What a sense of relief, strength, yes, veritable power comes into the heart of a timid, young teacher when she receives that bit of courteous recognition which stamps her as queen in the realm of her own classroom.

"In the ordinary routine of the day's doings a sense of freedom comes to the teacher if she is relieved from uncertainty as to just what is expected in various matters which really demand explicit directions. In these the mental attitude of eternal uncertainty and questioning is torturous. The same thing done in one way and then another, a wretched indefiniteness and confusion about mere routine details is wholly unnecessary and results in a petty serfdom for teachers. The supervisor who gives clean cut unmistakable orders about many things and offers a great variety of suggestions from which to choose about many others is the supervisor who liberates.

"The supervisor who most surely frees his teachers, is the educator, the one who not only knows the subject matter is to be supervised and the best methods of instruction, but who also knows human nature and life and the true ends of education. He interprets the course of study in terms of the important and the unimportant so that teachers are not lost in a bog of needless details; he illuminates a subject by a few suggestions so that teachers see a straight road before them. Take the subject of history, for instance: suppose your supervisor defines history as the story of how man has satisfied his needs, first the pressing, insistent demands of the body for food and shelter and then as those needs came to be more easily satisfied under surer, safer conditions of living, those other needs for social satisfactions, aesthetic enjoyment and spiritual uplift."

#### TRADING TEACHERS.

The custom of exchanging teachers for a year is growing. Several cities in the east have sent teachers to the extreme west to replace young women who will occupy their classrooms. The purpose is to change the environment, to give an insight into local conditions and methods in vastly different types of communities, to broaden and deepen the insight of instructors.

The idea is well worth trying. It is not new, for the colleges have exchanged professors for many years. In itself the travel which the ex-

changes require is beneficial. It takes the teacher away from local customs and traditions and lifts her out of the narrow rut of routine that ends in stagnation. If she is wide awake, alert, adaptable and openminded it is inevitable that she will return with new ideas, with helpful suggestions and with an enthusiasm that will benefit her associates and thereby help the schools.

#### THE WAR AND THE SCHOOLS.

If the convention of the National Education Association established any facts in the minds of the school board members and educators who attended, at least one stood out prominently. It is the determination of the government of the United States to use the schools as an important adjunct in the economic and industrial readjustments which are necessary to ensure the success of the army and navy. A second fact no less prominent is the determination of educators that the schools shall not suffer because of the war but that they shall be speeded up and improved to become still more efficient both for the years of the war and for the years after the war.

No stronger evidence of an underlying lack of faith in American democracy could be afforded than the disposition to retrench in educational expansion and in expenditures for education. If we have been truly honest in our belief in the efficacy of the schools, now is the time to continue building projects, to keep up standards of teaching, to continue all divisions of the school at their full power and to insist on the enforcement of attendance and child labor laws. The present is also a time for wise economy, for a careful weighing of non-essentials both in the physical equipment of the schools and in the curricula. It should be a time of survival of the fit, of the needful things.

During the coming months school boards will wrestle with a shortage in teachers, particularly men who have been drawn into the military or industrial service of the nation. It is likely that there will also be a shortage in women teachers because of the opportunities created by the withdrawal of men from the industries and from commerce. This shortage must be met by quickening and increasing the output of training schools and by making teaching attractive financially. Some relief may be had by combining classes and schools and by all-around readjustments. But it should not come by letting down the bars to those who are not fully prepared or to incompetents. Prudence and a constant insistence on efficiency must be the guide.

The N. E. A. proposes to limit the membership and offices in its several departments to men and women actively engaged in the work represented. What a hardship this action will be on the prominent men who perennially hold forth on the platform. And what a relief to the teachers who will be enabled to hear new voices and see new faces and to receive the benefit of active experience in their particular fields of labor.

School superintendents may be cranks; school board members can only be eccentric.

The schoolman who stops to think before he gives out a newspaper interview may not have much to say for publication, but he seldom has occasion to take any part of it back.

We go thru the world blind, and only education can open our eyes to see the strange things on every hand. And, more melancholy than all the rest, education is yet so blind that it goes groping in the dark.

Teachers may well remember in teaching the young idea to shoot, that the best target is not the dollar mark.



Mayor Thompson's Little Lamb Goes to School.  
—McCutcheon, Chicago Tribune.

# THE DEPARTMENT OF SCHOOL ADMINISTRATION. TWENTY-FIRST ANNUAL MEETING---PORTLAND, JULY 11-12

The prediction made two years ago, that the Department of School Administration would grow in strength each year, until it becomes one of the most influential sections of the National Education Association is in a fair way of becoming true. The meetings held during the recent Portland convention were attended by large audiences of school board members and teachers, and the papers read set a new standard for interest. The entire success of the meeting was due to Mr. O. M. Plummer whose irresistible geniality and live-wire activity brought together a group of the strongest school administrators in America to share in the work of the Department.

## Mr. Plummer's Address.

In opening the sessions of the section on Wednesday morning, July 11, at the Portland Auditorium, Mr. Plummer said, in part:

"When a board of education, after much consideration and investigation, selects a superintendent for its system, its work is half done. When it puts in the balance of the time letting him alone and looking to him for administrative results, its work is well nigh complete. Ninety-five per cent of the trouble between school board members and their administrative head, is caused by the question of patronage. The old-fashioned idea which still obtains in some quarters, is that the main duty of the school director is to provide places as teachers for his relatives and friends. It's apparently a question of a few years, however, until this idea will have become a thing of the past and school board people will confine themselves purely to the larger policies of the entire system, allowing the details to be worked out by the proper heads.

"No man should be on a board of education who has not a great love for children. If he has every other qualification and lacks this one he is bound to be a failure. No office within the gift of the people carries with it so much honor as that which goes with a member of the board of education.

"One of the best known statesmen in the United States, who has held practically every office excepting that of President, said that he counted 25 years of experience on his local school board as the most important and honorable duty which he had ever performed. When people at large realize the importance of the work of the board of education, they will give to the selection of such members as much consideration as they now do to the selection of their city and state officials.

"The School Administration Department of the National Educational Association can be made one of the strongest departments of the entire Association. If more school people could be brought to attend these national gatherings there would soon be a more general understanding by them of the problems of their administrative offices. They would also be brought in touch with the rank and file of teachers from all over the country, thereby getting a much broader viewpoint and be able to treat the various problems in a more sympathetic manner."

Mrs. Ella Flagg Young, in the first formal paper of the meeting, brought an echo of the unfortunate disagreements which have existed between the Chicago board of education and the teachers of that city during the past five years. Mrs. Young opened her paper by describing the famous Dred Scot decision, which apparently fixed more strongly than ever the legal rights of the Southern slave holders over their human property and which much hastened the break between the north and the south and ended in the war that set the negroes free and thus helped social righteousness in the United States. Mrs. Young drew a striking parallel between the Dred Scot case and the recent decision of the Illinois Supreme Court, which affirmed the right of the Chicago board of education to dismiss teachers for any cause or no cause. She argued that the power which this decision gives to school boards may be destructive of educational efficiency in that it lowers the independence and self-respect of the teacher. It is wholly incompatible with American ideals of democracy and fair play and so jeopardizes teaching as a profession and public service. The decision is certain to be followed by a reversal of public opinion in the direction of establishing the rights of the teachers to hold their positions during satisfactory service and good behavior.



MR. O. M. PLUMMER,  
President of the Department of School Administration,  
National Education Association.

## A School Code.

Mr. E. Shorrock, president of the Seattle board of education, followed Mrs. Young with a paper on "Unsolved Problems of School Administration." He covered so broad a field that his paper is in reality an outline for a complete code of laws for educational administration. The paper will be found in full in the September JOURNAL.

President Pearse of the Milwaukee Normal School is always interesting in the human touch which he can give to dry administrative problems. His discussion of the need for good teaching conditions, for better tenure and higher salaries of teachers was in his best style. Belligerence on the part of teachers, he said, is dangerous to the cause of good schools and of better conditions. School boards, he urged, should adopt an attitude of forbearance; they should seek to promote the best interests of the children rather than conserve the funds of the taxpayers.

Mrs. O. Shepard Barnum of California amused, as well as impressed her audience, by a witty and pointed discussion of educational shortcomings. She declared that the greatest duty of American school boards is to make education safe for democracy by boldly solving problems which now constitute a veritable educational "no-man's land." She called attention to six chief problems: (1) The failure of the school to meet the complete vocational needs of children who leave school at 14 without preparation for life or employment; (2) The failure of the elementary schools to get results from the teaching of such important subjects as civics and English; (3) The failure of higher institutions to prepare teachers for the business of teaching children the fundamental subjects; (4) The lack of scientific study of expenditures which causes wastefulness and inequalities; (5) The stretch between the school and the home which can be reduced to nothing if educators will but learn what the school should do; and (6) The war has brought on the necessity of action on the part of school boards to control the situation so far as it affects our success in the war and after the war. Mrs. Barnum strenuously opposed any reduction in educational facilities by shortening terms or disregarding compulsory attendance laws.

## Teachers' Salaries.

Mr. D. W. Springer, Ann Arbor, Mich., decried the custom of fixing teachers' salaries on the basis of schedules which make time serving rather than professional growth and efficiency the reason for increases. The necessary evil has been overcome in Ann Arbor in part by a plan of paying teachers a bonus of \$100 for the performance of definite work which will insure escape from the ruts of the school system. Thus the bonus is granted to teachers who either attend a teachers' association meeting outside Ann Arbor, or attend for three years a summer school in a university or normal school, or engage in a professional or technical activity that will benefit the schools, or travel abroad for a period of three months. In each case the teacher must present

a written report to the superintendent and to the school board's committee on educational affairs. As evidence of the effectiveness of the plan, Mr. Springer cited the fact that several years ago one-third of the teachers attended the Department of Superintendence in Cincinnati and requests for educational material amounting in value to \$7,500 resulted. These teachers had observed valuable, and to them, new forms of work which they sought to introduce. The plan is a spur to the ambitious and a check on the negligent, careless, unprogressive instructor.

Bishop W. T. Sumner who closed the morning session, took up the common virtues and shortcomings of school board members. School boards, he declared, must be composed of men of personality and intelligence. There is no place for the illiterate, the selfish, those who forget the children in advancing themselves. The educational system is too delicate an organism to permit of the quibbling of mayors who appoint men because of race or political aspirations. The attitude of school board members after appointment is important especially as it applies to the superintendent and the teachers. School boards frequently "spill the fish" because they interfere with matters about which they have no technical knowledge. He argued for more permanent tenure for teachers, the application of the civil service plan to appointments, and centralization of authority. He advocated larger budgets for the period of the war so that education may be speeded up to meet its new opportunities.

## School Architecture Discussed.

School Architecture occupied the second session of the Department. Mr. Frank Irving Cooper who opened the discussion spoke, in part, as follows:

"Millions of dollars are wasted every year in this country because there are as yet no standards in planning and construction of schoolhouses to which school committees can refer with confidence. Every place is today working by its own experience and to a very large extent blindly. If the plans of the standardizing committee are permitted to bear fruit, the National Education Association will be able to save the greater part of this waste."

Wm. C. Bruce followed with a paper on the principles in planning schoolhouses for civic use. Mr. S. A. Challman argued from his wide experience as State Commissioner of School Buildings for Minnesota that the school building should be closely adapted to the form of school organization. By means of plans for a high school to house 250 students he showed that from ten to twenty per cent of space may be saved in the planning of the school organization for the complete use of every room in a building and the careful adaptation of the structure to this end.

Mr. John J. Donovan of Oakland, in introducing the subject of the "Relations of School Boards to Architects," discussed the great growth in school enrollments and the need for better school architecture as affected by the demand for doubled space in the next ten years. He pointed to the need of continuous improvement in school architecture in those communities where close co-operation exists between architects and school authorities—the latter the experts in determining what space is needed, the former in arranging and assigning this space in school buildings.

Mr. Wm. B. Ittner spoke on the general problems of standardizing schoolhouse plans and pointed to the dangers of discontinuing school building operations during the war.

Mr. F. A. Naramore, whose splendidly complete and artistic new schoolhouses in Portland were visited by the architects and school board members in attendance, closed the program of the afternoon. He discussed in general, the best methods of selecting architects and the necessity of conducting competitions according to the code of the American Institute of Architects. He described in detail two highly successful competitions for new high school buildings. The session closed with the election of the following officers for 1917-18:

President, O. M. Plummer, Portland.  
Vice-President, Albert Wunderlich, Commissioner of Schools, St. Paul, Minn.  
Secretary, Wm. C. Bruce, Milwaukee, Wis.

## A Patriotic Session.

A patriotic session intended to appeal to teachers as well as school board members closed the

(Concluded on Page 40)



## The Folk Arts in Modern Education: Poetry—Music—Dancing

The ancient Greek system of education was founded upon a combination of these three arts. All Lyric Poetry needs Music to bring out its beauty. No one thinks of such poems as "Drink to Me Only," "Believe Me If All Those Endearing Young Charms," "Flow Gently Sweet Afton" and "Home Sweet Home" without associating them with music.

Dancing is the Poetry of Motion, measured by Music's Rhythm.

In all modern festivals, pageants and community gatherings we make use of the Folk Song and the Folk Dance, because they are the oldest forms of human expression, and represent successive stages in the growth of poetry, history and nationality.

# The Victor and Victor Records

are now used universally to furnish the Music for Drills, Exercises, Field Days, Plays, Festivals and Pageants in the School and on the Playground.

Many schools are using the following records:

- Band Accompaniments to American Patriotic Songs**
- |            |  |                      |
|------------|--|----------------------|
| 17580      | America (Samuel F. Smith-Henry Carey)                      | Victor Military Band |
| 10 in. 75c | The Red, White and Blue (David T. Shaw)                    | Victor Military Band |
| 17581      | The Star Spangled Banner (Frances Scott Key-Samuel Arnold) | Victor Band          |
| 10 in. 75c | Hail Columbia (Jos. Hopkinson-Prof. Phile)                 | Victor Band          |

- Kindergarten Rhythms**
- |            |  |             |
|------------|--|-------------|
| 18253      | (1) Motive for Skipping (2) Motive for Skipping (Clara L. Anderson)  | Victor Band |
| 10 in. 75c | (1) Theme for High Stepping Horses (2) Horses or Reindeer Running (3) Theme for Skipping (Clara L. Anderson) | Victor Band |



Victrola XXV, \$67.50  
specially manufactured for  
school use

When the Victrola is not in use, the horn can be placed under the instrument safe and secure from danger, and the cabinet can be locked to protect it from dust and promiscuous use by irresponsible people.

- Marches**
- |               |   |                      |
|---------------|---|----------------------|
| 35608         | The Jolly General—March (Neil Moret) Conway's Band  | Victor Military Band |
| 12 in. \$1.25 | Patriotic Medley March (Introducing Hail Columbia; Red, White and Blue; Tramp, Tramp, Tramp; Battle Hymn of the Republic) | Victor Military Band |
| 35531         | Thunderer March (Sousa) (Metronome=120) Victor Band   | Victor Band          |
| 12 in. \$1.25 | Southerner March (Russell Alexander) Conway's Band  | Victor Band          |
| 18017         | In the Park (Karl Dorn) (In slow march time) Victor Band  | Victor Band          |
| 10 in. 75c    | Tenth Regiment March (Hall)   | Victor Band          |

- Band Accompaniments for Familiar Songs**
- |            |  |             |
|------------|--|-------------|
| 18145      | My Old Kentucky Home (Stephen Foster) (2) Battle Hymn of the Republic (Julia Ward Howe)    | Victor Band |
| 10 in. 75c | Believe Me, If All Those Endearing Young Charms (Moore)                                    | Victor Band |
| 18177      | (2) Home, Sweet Home (Payne-Bishop)  | Victor Band |
| 10 in. 75c | Annie Laurie (Douglas-Lady John Scott) (2) Love's Old Sweet Song (Bingham-Molloy)          | Victor Band |
|            | Drink to Me Only With Thine Eyes (Ben Jonson) (2) Flow Gently, Sweet Afton (Burns-Spilman) | Victor Band |

- Instrumental Classics**
- |               |  |                  |
|---------------|--|------------------|
| 17917         | Gavotte (Mozart) (2) Gavotte (Gretry)                              | Wm. H. Reitz     |
| 10 in. 75c    | Menuett (Gluck) (2) Menuett (From "Don Giovanni") (Mozart) (Bells) | Wm. H. Reitz     |
| 18216         | Dorothy (2) Gavotte from "Mignon"                                  | Wm. H. Reitz     |
| 10 in. 75c    | Moment Musical (2) Mazurka   | Wm. H. Reitz     |
| 35493         | Marche Militaire (Schubert)  | Victor Orchestra |
| 12 in. \$1.25 | Egmont Overture (Beethoven)  | Victor Orchestra |

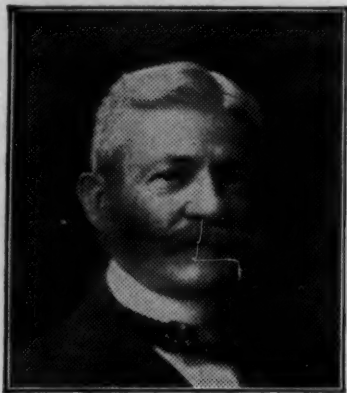
- Folk Dances**
- |            |  |                      |
|------------|--|----------------------|
| 17961      | My Lady Cullen (Country Dance Tunes, Set 4) (Arr. Cecil J. Sharp)  | Victor Military Band |
| 10 in. 75c | Daldans (From "Folk Dance Music") (Burchenal-Crampton)   | Victor Military Band |
| 17840      | Hornpipe (From "Dances of the People") (Burchenal)   | Victor Military Band |
| 10 in. 75c | Rinnce Fada (Top of Cork Road) (From "Dances of the People") (Burchenal)                                   | Victor Military Band |
| 18009      | If All the World Were Paper (2) Mage on a Cree (From "Country Dance Tunes," Sets 5 and 3) (Cecil J. Sharp) | Victor Band          |
| 10 in. 75c | Ruffy Tufty (2) Parson's Farewell (From "Country Dance Tunes," Set 3) (Cecil J. Sharp)                     | Victor Band          |
| 17846      | Tideswell Processional March (From "Morr's Dance Tunes," Set 2) (Arr. by Sharp and MacIlwaine)             | Victor Band          |
| 10 in. 75c | Goddesses (From "Country Dance Tunes," Set 4) (Arr. by Cecil J. Sharp)                                     | Victor Band          |

Any Victor dealer will gladly play any of the above selections for you, and supply you with the Victor booklets, "The Victor in Rural Schools," "The Victor in Physical Education," and "New Victor Records for Educational Use." For further information, write to the

Educational Department  
Victor Talking Machine Co.  
Camden, N. J.

# Victor





## Using Free TEXT BOOKS

without the

## Holden Book Covers

is like trying to Save  
Time by setting back  
the hands of the clock!

**SEE THAT EVERY BOOK GIVES YOUR TAXPAYERS**  
the two to three years extra service these  
**Durable, One-Piece Covers Provide**

*Free Samples on Request*

**The Holden Patent Book Cover Company**

Miles C. Holden, President

SPRINGFIELD, -- MASS.

"McIntosh Lanterns are Honest Lanterns"

# Please

remember, that you can best serve yourself, your school, and, we think, your country, by not only devoting your time and energy to the cause of education but by conserving them; by using your utmost efficiency.

The cause of education must go on; the next generation must be as well, or better, trained than this, and with the war before us the American school must be kept at its MAXIMUM of efficiency.

Congestion of traffic, and the considerable confusion of business everywhere, means delays in shipping. So get your orders in early for the visual instruction supplies you'll need thruout the coming year.

Visual Instruction is the most efficient and permanent method of teaching. The eye gate is worth more than all the other senses combined.

Be prepared by anticipating your needs and placing your orders now, for immediate shipment. September dating on invoices, if desired.

### LANTERNS

Automatic Sciopicon with  
gas-filled Mazda lamp ..... \$38.00  
Triumph Sciopicon ..... \$25.00  
Opaque Projectors ..... \$35.00 up

### SLIDES

Catalog E—Geography, Commercial and Industrial.  
Catalog S—Science.  
Catalog A—Agriculture and Rural Improvement.  
Catalog H—History and Civics.

**McIntosh Stereopticon Company**

427 Atlas Block

CHICAGO

Early ordering assures best service.

(Concluded from Page 38)

work of the Department. It is impossible to reproduce the spirit of a patriotic meeting like this without employing superlatives and apparently exaggerated statements. Dr. Robert J. Alely was eloquent in his statement of the achievements of the United States in the fields of government, democracy and education, all of which he cited as reasons for his love of America. In introducing his subject, Dr. Alely declared that it is important during the present war crisis that the door of the school be kept wide open and that the schools keep not only the normal pace but that they actually improve the scope and quality of instruction. No one knows when the war will close but the need for educated men will grow as the war progresses and will rise to a supreme necessity when it ends. After the war it will be necessary to rebuild America so that it will be truly an example of democracy to all the nations. "I am proud of America," said Dr. Alely, "because of its greatness in education. I love my country for its success in molding all men who have come to our shores into Americans. I love it for the beauty of its flag. I love it because its government represents the greatest faith in the people and finally I love my country because of its faith in God—because it has never lost its moorings from the eternal."

Quite a contrast to Dr. Alely's fervent patriotic appeal was the very practical address of Dr. Caroline Hedger on the "Problem of the Immigrant." Dr. Hedger declared herself somewhat pessimistic in her view of American unity and democracy. Our failure to absorb the immigrant more completely and to make him irrevocably American is due to our prejudiced attitude toward him, an attitude which results in his impersonalization. Dr. Hedger discussed very specifically the outcroppings of our intolerance and of our exploitation of the foreigner as cheap labor. She spoke of our habit of "lumping" all foreigners by means of offensive slang names, of designating them the scum of the earth, of failing to solve their musical names, of ignoring their history, their beautiful customs, their arts-and-crafts, of decrying their habits as dirty, of considering them criminal. Dr. Hedger suggested

that every American should cultivate at least one foreign friend and should really make that friendship a means of help.

Governor Lister of Washington, in his address, argued for greater unity during the war which, he said, is not a time for settling differences between capital and labor, for radical reform movements or for great changes.

President William T. Foster of Reed College closed the session with a discussion of ideals in war time. He said, in part:

"The War thrusts upon the Nation the need of burnishing ideals as well as armaments. Armies and navies and aeroplanes alone cannot make the world safe for democracy. As democracy is a body of ideals, its last citadel of refuge from the enemy must be an institution dedicated to the conservation of ideals. Such an institution is the university.

"Thousands of the noblest young men of America are now on their way from the universities to the front trenches of the fight for ideals. Some of them will never return. That will be a loss beyond the power of imagination; but it will be a greater tragedy if, while they are dying at the front, we who stay behind fail to do our part in making the world safe for democracy. We shall fail unless we make our schools and universities safe places for continuing—even under stress of war—to inculcate the ideals for which we went to war. For what shall it profit us if we gain the whole world for democracy and thereby lose the soul of democracy?"

"We have declared, again and again, by the most solemn official utterances, that we have undertaken a war for the ideals of freedom, freedom under the law, freedom from tyranny, freedom from injury without due process of law, freedom from autocratic power, freedom of the seas, freedom to the seas, freedom of small nations to live their lives without fear of subjugation, freedom in the pursuit of truth. We have declared that our purposes are humanitarian, free from the suspicion of selfishness, that we ask no spoils of war, no conquest of land nor monopolies of trade; in short, that we ask nothing for ourselves that we do not ask for all mankind. It is the function of the university, as the conservator of

ideals, to keep the vision of these, our noblest national aspirations, unblurred; for where there is no such vision, the people perish."

### CONTINUATION SCHOOL LAW UPHELD.

The Wisconsin Supreme Court has upheld the compulsory school law of the state as it applies to the continuation schools for employed children between the ages of 14 and 17, in an interesting case that originated in Milwaukee County. The testimony in the action revealed the facts that the girl who was later found guilty of truancy was 16 years of age, that she had graduated from the grammar school, had attended high school a year, and was a graduate of a business school. For eight months previous to her arrest she was in the employ of a publisher in Milwaukee as stenographer, and later as bookkeeper. Her employment so occupied her time that she could not and her employer would not allow her to attend the school. She was a good student, and quite accomplished for one of her years and station. The Juvenile Court found her guilty of delinquency as charged, but granted a stay of enforcement of the decision pending appeal.

The Supreme Court in its decision pointed out that the law requires children to attend the continuation school, and that it seems to imply that a minor shall not take or be afforded employment away from home to preclude attending school as required. While much of the evidence offered on behalf of the girl showed that she had such educational qualifications that she was not a proper subject for continuation school training, and that under the circumstances it was greatly to her advantage to forego such training to pursue her vocation as bookkeeper, and to take advantages of facilities offered for such instruction as would be of use to her business, still that does not constitute legal excuse for her conduct. The statute is mandatory and does not seem to admit of any exception. It is a child labor law for promoting the welfare of minors, and while in the present instance it might seem harmful, the courts must take the law as it is, so long as it remains within the constitutional limitations. The court consequently held that the defendant must be found guilty, and must be compelled to observe the law.

REO

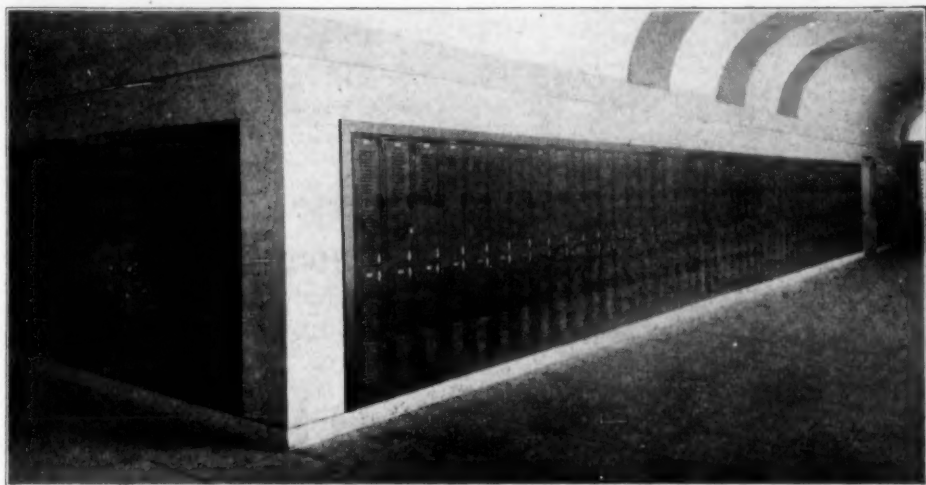
The portment, dation

1. system that and n count the A and d the ex of th cents.

2. some the B where recon find th could depart with c ment buildi pair o the de Archi

3. repair ferred Bureau ment machin sible f ment

# DURAND STEEL LOCKERS—Encourage



There is a business side to teaching. It is most evident in private schools where the life of the school depends on the students' finishing their course and making a good showing after graduation.

In private schools, equipment is usually chosen

with the idea of giving the young people an environment of contentment conducive to learning.

It is policy to apply the same good business methods to the public schools, and encourage the students to return year after year for higher work, and better work.

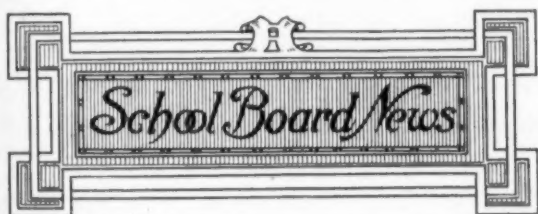
Durand Steel Lockers should be a part of the equipment of your school. They are strongly built of finest steel, finished with best enamel. They have individual locks and individual numbers. They are sanitary, fire-proof and practically indestructible.

*Write today for our new catalog showing modern styles of lockers for school coat-room and gymnasium.*

1521 Ft. Dearborn Bank Bldg.  
CHICAGO

**DURAND STEEL LOCKER COMPANY**

921 Vanderbilt Bldg.  
NEW YORK



## REORGANIZATION OF REPAIR DEPARTMENT.

The subcommittee of the Chicago board in reporting on its investigation of the repair department, makes a number of important recommendations.

1. The committee recommends that a thorough system of accounting, as to costs be provided, and that the checking in and checking out of goods and materials be improved; that the entire accounting system be placed under the control of the Audit Department in order that an accurate and definite plan may be worked out regarding the expenses of doing business, costs and results of the department's activities in dollars and cents.

2. That the department of repairs should in some manner be brought into closer relation with the Bureau of Architecture, especially in cases where the repairs involve the demolition and reconstruction of buildings or parts thereof. We find that work has been done, the cost of which could have been reduced materially if the two departments had been co-operating in conjunction with each other. At all times the repair department should be provided with blueprints of all buildings, or parts thereof, it undertakes to repair or to reconstruct. This can be done easily by the department co-operating with the Bureau of Architecture.

3. That all work pertaining to installation, repairing and reconstruction of scales be transferred from the department of repairs to the Bureau of Engineering, as the last named department has supervision of all engineers and the machinery in school buildings, and also is responsible for the handling of coal; it can, in the judgment of the subcommittee, handle the scales to

much greater advantage than any other department.

4. That all work on school buildings requiring an expenditure of three hundred dollars or more, be let by contract to the lowest bidder therefor, except in cases of extreme emergency.

5. That all manufacturing in the repair department be dispensed with except as to such items as may be required for emergency purposes.

6. That all machinery in the department which is not necessary or required for emergency work, be disposed of as soon as possible.

7. That all repairs pertaining to the physical upkeep of the schools be transferred from the educational department to the business department to be dealt with as the manager of the department, in his judgment may determine for the best interests of the schools.

8. That the department of economy and efficiency take charge of and reorganize the Bureau of Repairs, and that all requisitions for repairs, materials and other items be passed upon and furnished thru the department.

9. It is further recommended that in order for the department to operate more economically and efficiently, a new building one story in height be constructed, so that all the work of the department may be transacted on the ground floor. The building should be centrally located so as to be available to all parts of the school system, and all machinery should be electrically operated.

## AMONG BOARDS OF EDUCATION.

The Buffalo school board has approved a recommendation that a business manager be appointed to look after the business affairs of the school system. The municipal bureau of buildings has been given charge of all school repairs and building construction, while the auditing department has been given the work of auditing school accounts.

The school board of San Francisco, Cal., has entered into an agreement thru which an exchange of teachers is to be made with the schools of Lawrence, Mass. One teacher will be sent from each school district.

On July 2nd a new school board of seven members went into office at Detroit, Mich. The new

board which displaces the old governing body of 21 members, is composed of six men and one woman.

The members of the new board are: Samuel C. Mumford, President; Frank H. Alfred; Mrs. Laura F. Osborn; Joseph S. Stringham; Dr. S. Hall; Dr. Andrew P. Biddle and Judge A. C. Angell.

A. L. Clinite has been re-elected as school secretary at Des Moines, Ia. H. U. Keasey has been reappointed as supervisor of buildings.

The school board of Kansas City, Mo., has discontinued the management of the McCune Farm for Boys. The institution will hereafter be under the direction of the County Court of Jackson County, with Mr. H. C. Kemper as superintendent.

The finance committee in its report to the school board of San Francisco, Cal., has indicated that close economy must be practiced by the school department if the standard of work is to be maintained during the coming year. The report shows that altho the budget allowance for the common school fund for the fiscal year 1917-18 provides \$135,000 more than was available last year, the salary roll alone will exceed that of the past year by \$60,000. Deducting \$60,000 for continuing the present staff of teachers, leaves a net increase of \$75,000 with which to provide additional teachers, establish additional kindergartens, build additions and make improvements in the course of study, and provide for increases in the cost of materials. It is estimated that the cost of coal will exceed \$10,000.

The Public Education Association of New York City, thru its director, Howard W. Nudd, has asked for definite action on the proposal to spend \$1,511,529 for the elimination of part-time and double sessions thru the extension of the Gary plan. Failure to take up the matter at this time would prove unfortunate in view of the efforts of the majority of the board to solve in a comprehensive way, the part-time problem in the schools.

Erie, Pa. William J. Flynn, who has been re-appointed secretary and business manager of the board, has resigned.

Robert E. Richardson has been re-elected secretary of the board at Reading, Pa.

## Globe-Wernicke

School Office Equipment

Wood and Steel

Globe Safes



### THE THREE FUNDAMENTALS OF BUYING

The modern school executive buys office equipment on the same efficiency basis as the corporation executive.

**SIMPLICITY**—It must do the work in the easiest and best way.

**STANDARDIZATION**—It must grow as requirements demand.

**KNOWN VALUE**—Its economy and dependability must be unquestioned.

Write for Globe-Wernicke Catalog No. 817-H. S., a book every school executive should have.

THE GLOBE-WERNICKE COMPANY

CINCINNATI

William L. Pieplow has been elected president of the school board of Milwaukee, Wis.

R. H. Williams has been elected secretary of the school board at Council Bluffs, Ia.

With every precaution taken against technical objections by the present Chicago board, State Attorney Hoyne has filed quo warranto proceedings against the members of the Thompson board and its newly elected officials. The first petition has been directed against eight of the mayor's appointees. Lewis E. Larson, secretary and business manager of the old board, was the complainant against Business Manager Percy B. Coffin and Secretary Miller of the new board. The final petition was that of Angus Roy Shannon against Charles R. Francis, attorney for the board.

A number of civic organizations have made plans for a large mass meeting against the mayor's school board policy.

The third attempt of the committee headed by Howard C. Smith, to obtain the approval of the New York Chamber of Commerce on a report criticizing methods employed in the city schools has been successful. The report and the resolutions, however, have been considerably toned down as compared with the ones previously submitted. In the main, they provide:

1. That the board shall have full control over all employees of the department.

2. That the power of discharge of inefficient employees, whether belonging to the teaching force, or other employees of the department, shall be absolute, subject only to protection against political disfavor.

3. That the board shall adopt such strenuous rules for the advancement of students of one grade to another as to impress thoroughly upon all students that they cannot hope to be advanced without having first acquired a thoro knowledge of the subjects taught them.

Particular criticism is made by Mr. Smith's committee of the fact that the right of the school authorities to discharge inefficient teachers is not clear and effective. "The power of removal," says the committee, "which is essential to all efficient management, is substantially nil in practice, and in the judgment of the committee, here-

in lies one important cause of the weakness of the school system."

In answering the criticisms, President William G. Willcox said that a constant improvement is being made, but that the path of the board is beset with difficulties, chief of which are financial. In his opinion, the report creates a rather exaggerated impression of the deficiencies of high school graduates and of the number and importance of inefficient teachers.

Long Beach, Cal. The city commissioners have passed an ordinance permitting members of the board \$10 each for every meeting which they attend. Such meeting must not exceed three in any month.

Charles M. Piper has been elected secretary of the school board of Altoona, Pa.

A. W. Moss has been re-elected secretary of the school board of Wilkesbarre, Pa.

Leslie D. Kline of Stephens City, Va., has been appointed superintendent of the city schools of Winchester and of the counties of Frederick and Clarke.

Mr. Kline is a graduate of Virginia Polytechnic Institute and the law school of the University of Virginia. He has been an instructor in the Stephens City high school for a number of years.

R. M. Bolenius has been elected secretary of the board at Lancaster, Pa.

D. D. Hammelbaugh has been re-elected secretary of the board at Harrisburg, Pa.

The Chicago Association of Commerce has asked the board of education to grant the use of the public schools during the summer for juvenile recreation centers, penny lunch stations and bathing centers. The action is intended to reduce juvenile delinquency during war time.

Delbert C. Smith, formerly chief engineer in charge of supplies and janitors of the Detroit board of education, has been restored to his position thru the by-laws adopted by the new board. Mr. Smith will be under the sole supervision of Supt. Charles Chadsey. He will have charge of all repair work with the exception of work let out on contract.

The Supreme Court of Ohio has denied a writ in the quo warranto proceedings instituted in the name of Attorney General Joseph McGhee against

Read what Prof. Ellis, of the University of Texas, the greatest student of Public Hygiene, says about

## KEYSTONE FLAT FINISH

The original Washable Liquid Wall Paint, the most successful finish for Walls of Schools. Beware of imitation. Anything offered like it is an imitation. Send for book of tints, combinations, and Prof. Ellis' suggestions.

## Elastic Interior Finish

is the varnish which is used in many schools, even when being built, because when any water or the sweating of a new building is on it, it is not affected.

## ZINOLIN

(non poisonous)

"Arnold-ized" ZINC paint

is the All-Zinc, No-Lead Paint for the outside. Send for circulars telling of this.

## Keystone Varnish Company

No. 17 Otsego Street, Brooklyn, N. Y.

B. J. Strawsburg, Henry L. Schaefer and J. Forest Kitchen of Springfield. Suit was brought in an effort to oust the three members of the board, several weeks after the majority members had signified their intention of electing George E. McCord to the superintendency. Mr. McCord is still the choice of the majority faction of the board.

The school board of Lincoln, Neb., has voted to abolish secret societies in the high schools. The rules provide that pins and charters must be turned over to the board and that all activities of such organizations must cease. The six or eight societies now existing in defiance of the law must disband before the opening of the next school term.

John R. Thompson, 72, for many years a member and at one time president of the Brooklyn, N. Y., board of education, died June 21st.

E. A. Sommer and O. M. Plummer have been elected as members of the school board of Portland, Ore., for terms of three years each. The complete board as it now stands includes Dr. Alan Welch Smith, Nelson G. Pike, Dr. J. Francis Drake, Dr. E. A. Sommer and O. M. Plummer.

The Oklahoma county grand jury, on June 19th, reported that after a week of questioning witnesses, it was evident that the testimony did not support the statements made by J. E. Porter and J. W. Berry charging irregularities in the official conduct of certain members of the Oklahoma City school board.

The grand jury in its report, held that "the evidence submitted does not in any manner support the affidavit made by J. E. Porter or the statements made publicly by J. W. Berry, charging irregularities in the official conduct of the board." It was also brought out that "the said board as at present organized, seems to be efficient and should be given an opportunity to demonstrate the kind of management of school affairs which is possible when there is no interference by newspapers, patrons, grand juries, and others, whose collective activities, no matter by what high motives, have been very largely responsible for the unsatisfactory situation and lack of confidence in the management of our schools which has hitherto existed and which all good citizens deplore."

# Bausch & Lomb

Instruments bearing our name are the result of more than 60 years' manufacturing experience. They are accepted by scientists, research and laboratory workers, and by educational institutions the country over, as the highest standard of optical precision, mechanical accuracy and practicability.



FS2 Microscope.

## Microscopes

*The Accepted Standard*

Constant study of the needs in the many classes of work, accurate application of all known optical and mechanical principles, and highest skill of workmanship account for the widely conceded superiority of all Bausch & Lomb instruments.

The illustrated Model FS2 is ideally adapted to earnest work in the classroom, in the college laboratory and for home study. It has side fine adjustment of our lever type. It is strongly built, durable and thoroughly practical. Ample space is provided for object manipulation. Finished in our new black crystal, which is more durable than the ordinary lacquer, and mar-proof.

Price, complete, \$34.

Other Models from \$18 up.

## The Balopticon

*The Perfect Stereopticon*

The value of visualization in colleges as well as elementary schools is too well established among our educators to require elaboration here. But the quality of projected pictures depends wholly on the lens—efficiency, illumination and general construction of the projecting instrument.

The lenses of the Balopticon assure you of clear, vivid pictures—sharp to the extreme corners. The recently adapted, high power Mazda lamp greatly surpasses the old-style arc in candle power—and consumes far less current. It is simple and entirely automatic—and no rheostat is needed.

Models for lantern slides, \$25 up—for opaque objects, maps, photos, color-prints, etc., \$35 up—and Models combining both forms, \$45 up.



Combined Balopticon with 1000-Watt Mazda Lamp, \$120.

*Write for illustrated Circulars and interesting Catalogs about both our Microscopes and Balopticons.*

*Special Terms to Educational Institutions.*

*Write for illustrated Price Lists and our Special Catalog of School Equipment.*

## Bausch & Lomb Optical Co.

411 ST. PAUL STREET ROCHESTER, N.Y.

NEW YORK

WASHINGTON

CHICAGO

SAN FRANCISCO

*Leading American Makers of Photographic Lenses, Binoculars, Projection Lanterns (Balopticons) and other High-Grade Optical Products.*



## No Glaring Sun—But Plenty of "Eye-easy" Light!

Winter sun is hard on students' eyes. Aerolux Ventilating Window Shades keep the sun out. But they let in an abundance of soft, "eye-easy" light—ideal for study. Modern schools everywhere recognize the merits of these modern shades—

# AEROLUX

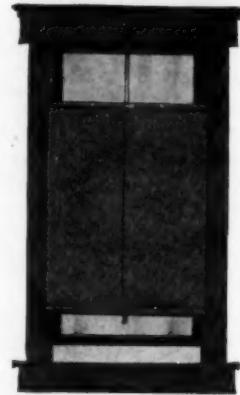
## Ventilating Window Shades

They do not cut off ventilation like other shades. And added to these features is beauty—durability—and economy which every careful purchaser considers.

Now—during the vacation period is the best time for installation. Write at once for information. Include specifications and let us make you a price.

THE AEROSHADE CO., 755 Oakland St., Waukesha, Wis.

## RIGHT - LIGHT



What is more annoying to students than to have the sun reflect squarely on their desks or in their eyes? True your school rooms must be light. But you can't get light that is right with shades that are not right.

### Draper's Cotton Adjustable Shades Are Right.

They may be adjusted to any part of the window. They admit all the necessary sunlight, but keep the piercing rays of the sun away from the eyes and desks of the students.

Further Information and Circular  
on Request

LUTHER O. DRAPER SHADE CO.  
SPICELAND, IND.

## For Busy Superintendents

### ADVANTAGES OF THE JUNIOR INTERMEDIATE SCHOOL.

The New Jersey Council of Education recently received from Superintendent Don C. Bliss, of Montclair an enumeration of the advantages and difficulties connected with the organization and administration of Junior High Schools:

#### Advantages.

1. A better grouping of pupils in accordance with their special traits and abilities.
2. Opportunity for a flexible administration of the schools decidedly increased.
3. Grouping of adolescent pupils apart from primary children.
4. Tendency toward the employment of more men and better women teachers.
5. Partial segregation of the sexes: in physical training, in industrial arts, and even in some academic work.
6. The natural pedagogy of some subjects calls for this readjustment of the curriculum. A foreign language should be taught as early as possible. The junior school brings it to the seventh grade. A six-year continuous course in language should give some facility in its use.
7. It makes possible some variety in the courses offered.
8. The semi-departmentalization of the work brings pupils into contact with several personalities and results in a composite effect better for the pupil than the contact with a single teacher.
9. The variety in the courses furnishes vocational insight for the direction of pupils.
10. Individuals have a tendency to complete a course once undertaken. Pupils who would naturally drop out at the end of the eighth grade stay in school a year longer in order to complete the junior course.

11. Grouping numbers of pupils in centers secures a better use of the industrial arts equipment.

12. The problem of transportation to a central high school is postponed for a year longer.

13. Promotion by subject is easier than under the old form of organization.

14. A better opportunity is provided for extra school activities such as orchestras, glee clubs, debating societies, etc.

15. Numbers provide enthusiasm and a strong school spirit is more easily developed.

16. The old seventh and eighth grade work was unprogressive and unstimulating. It was largely threshing over old straw. Time was wasted and the zest that comes from the study of new subjects was lacking.

#### Difficulties.

1. Complexity of administration. This should not enter into the decision, since welfare of pupils and not ease of administration should determine policies.

2. The child becomes confused in adapting himself to the demands of different teachers. This problem will occur later in any event, and a gradual change is preferable to the abrupt transition inevitable in the four-year high school.

3. It is more difficult to place responsibility for poor teaching. This is a question of supervision. If efficient, it should solve the problem.

4. Tendency to general confusion in the building incident to changing rooms. Must be met by careful planning and a policy of decision in handling the problem.

5. Teachers tend to grow narrow if restricted to the teaching of a single subject. The remedy lies in an occasional change of subject.

6. Properly qualified principals are hard to find. Probably true, but such men are to be found.

7. Properly qualified teachers are hard to find. The effort to qualify reacts favorably upon the teacher.

8. Elementary principals object to the loss of the two upper grades from their schools. The welfare of pupils should stand above selfish pride in the school.

9. Teachers object to the demotion occasion-

ally inevitable. Welfare of children is of more importance than teacher preference.

10. Inconvenienced parents object. Not when they clearly understand the gain to their children.

11. Children miss the personal influence of the teacher, who is entirely responsible for the success of the year's work as a whole. Here the gain more than counterbalances the loss.

12. Departmental teachers tend to overwork pupils. A question of careful administration.

13. System tends to underestimate the value of drill. Not if teachers are held to a high standard of efficiency.

14. The school lunch problem is introduced. Not serious and may usually be provided for without difficulty.

#### FOR BUSY SUPERINTENDENTS.

"Visiting trips" to the city of Madison have become popular among Wisconsin Schools particularly at graduation time. The trips include carefully conducted tours thru the Wisconsin State Historical Museum, State Capitol Building, and the University of Wisconsin. During the spring of 1917 nearly 800 students from various Wisconsin communities have visited the Historical Museum, and fully one-half of them were substituting the trip for formal commencement exercises. Others from nearby towns were seeking ideas to illustrate a supplement for their study in history and civics. The Museum is particularly well adapted for the latter purpose in that it contains carefully completed collection of original materials from the earliest settlement of the State to the present day.

The Board of Estimate of East Orange, N. J., has approved the largest budget in the history of the local schools. The budget, which was made on the recommendation of Supt. E. C. Broome, amounts to \$426,777.

Under the direction of Supt. C. H. Winder, the schools of Chattanooga, Tenn., have been reorganized on the Gary plan. The new arrangement assures more intensive supervision, provides a longer school day and makes possible a coordination of the physical and mental forces.

The plan of organization provides for the following:

# School Printing Outfits Are Being Installed Daily

The Composing Room  
of the Printing Department  
of the  
Elm Vocational  
School,  
Buffalo, N. Y.



In addition to the room  
shown here, there are two  
pressrooms and a bindery.  
This is one of the most  
efficient school printing  
outfits in the United  
States

**T**HE school boards of this country seem determined that nothing shall impair the efficiency of the American School System during the war.

**We Are Ready!** The services of the Education Department of the American Type Founders Company are mobilized and await your call.

THE EDUCATION DEPARTMENT HAS HELPED IN THE INSTALLATION OF HUNDREDS OF SCHOOL PRINTING OUTFITS. IT HAS SUGGESTED OUTFITS, COURSES OF STUDY, AND TEACHERS. MAY WE SERVE YOU?



EDUCATION DEPARTMENT  
**AMERICAN TYPE FOUNDERS COMPANY**

300 COMMUNIPAW AVENUE, JERSEY CITY, N. J.

Set in members of the Cloister Family

## SELLING HOUSES

BOSTON, MASS. . . . . 270 Congress Street  
NEW YORK CITY . . . . . William and Frankfort Streets  
PHILADELPHIA, PA. . . . . 17-19 South Sixth Street  
BALTIMORE, MD. . . . . 213-217 Guilford Avenue  
RICHMOND, VA. . . . . 1320 East Franklin Street  
BUFFALO, N. Y. . . . . 45 North Division Street  
PITTSBURGH, PA. . . . . 323 Third Avenue  
CLEVELAND, OHIO . . . . . 15 St. Clair Avenue, N. E.  
DETROIT, MICH. . . . . 43-45 West Congress Street  
CHICAGO, ILL. . . . . 210-212 West Monroe Street  
CINCINNATI, OHIO . . . . . 646 Main Street  
ST. LOUIS, MO. . . . . Ninth and Walnut Streets  
MINNEAPOLIS, MINN. . . . . 421 Fourth Street, South  
KANSAS CITY, MO. . . . . 602-604 Delaware Street  
DENVER, COLO. . . . . 1621 Blake Street  
LOS ANGELES, CAL. . . . . 121 North Broadway  
SAN FRANCISCO, CAL. . . . . 820-822 Mission Street  
PORTLAND, ORE. . . . . 92-94 Front Street  
SPOKANE, WASH. . . . . Sprague Ave. and Browne St.  
WINNIPEG, CANADA . . . . . 175 McDermot Avenue  
CONNER, FENDLER & COMPANY  
96 Beekman Street, New York City  
MILWAUKEE PRINTERS SUPPLY HOUSE  
125 Second Street, Milwaukee, Wis.

Supervisors of special subjects will become head teachers and will be located at the buildings where they teach. Teachers of these subjects will be assigned to all buildings.

A longer school day will be arranged to provide for supervised study.

In commenting on the advantages of the new arrangement, Supt. Winder said, in part: "The fields of knowledge have multiplied so rapidly that it is no longer possible for a teacher to give classroom instruction in every subject that must be taught. It is, therefore, proposed to readjust the elementary as well as the high school programs to encourage correct habits of study under the supervision of an expert teacher.

"Changed social, industrial and economic conditions have compelled schools to add music, drawing, physical culture and many other subjects. While these avenues of learning should be open to every child, it is desirable that some of them should be elective or optional, and it is equally certain that no teacher can be a master of pedagogy in every branch. In view of these facts, the educational department plans to treat each building or school as a unit, and the respective faculties will be divided into teachers of regular subjects. This will enable the teachers to give all of their time to the fundamentals and will make it possible for all to become experts.

"The supervisors of special subjects will be head teachers and will be anchored in certain buildings. On certain days of the week they will have classwork with pupils in the buildings where they are located, and one day of the week will be given to the work of supervision. Assistant teachers will report to their respective head teachers each week for standardization of the work and instruction. They will be responsible for the work in their buildings.

"It is planned to introduce supervised study in the schoolrooms. This means longer periods and a longer school day. The Junior High School will have six periods of sixty minutes each, thirty minutes to be devoted to the development and study of the next day's lesson. The other half of the period will be used for the recitation

of the lesson prepared. The length of periods in the elementary school will not be as long as those in the high school, but the school day is destined to be longer than it has been in the past, in order that there may be supervised study and sufficient time for the teacher to test results.

"The schedules for all buildings will include sufficient recreation and physical training to avoid mental fatigue and weariness. In the high schools, for example, there will be five minutes between classes for all of the pupils to move from room to room. The gymnasiums in these buildings will be used during certain periods by the students who are not engaged in classroom activities. In the elementary schools, where it is practicable, there will be organized play activities thruout the day for groups of children not engaged in study or recitation. While the school day may be slightly longer than it has been, the enriched curriculum and variety of activities will awaken interest and prevent fatigue."

In the opinion of Supt. Winder and the educational department, the new arrangement will develop better habits of thought activity, mature better students, and build better citizens. It is expected the practice of supervised study will enable both pupils and teachers to finish the major part of the lesson preparation within the hours of the school day. If supervised study is properly planned and operated by the teachers, the amount of homework on the part of the instructors may be materially reduced.

Where some students find the day too long and wish to be excused for private music lessons, or to be engaged in some activity for the purpose of assisting in earning a living, such cases will be recognized on their merits. An excuse or release will be required of the parent or guardian and filed in the principal's office. In such cases the individuals affected are considered as part-time pupils and must make up the work in summer school.

The New Jersey State Board of Education has accepted a report from its advisory committee discussing discrimination against teachers because of their religious faith. The report recalls that the advisory committee has found that cer-

tain school boards thru their acting officers have been discriminating against candidates for teaching positions on the ground that they were of a religious faith, objectionable to members of the respective school communities where application was made. In one case a teacher was appointed by telegram, and the appointment was cancelled by telegram when it was learned that the teacher belonged to an unacceptable denomination. Upon inquiry it developed that the supervising president of the district had sent the telegrams of his own volition, and that he had exceeded his authority without knowledge of the district clerk, and without knowledge of the school board.

In another case the complaint came to the state authorities from a teacher who submitted to the state authorities a blank sent her by the district where she applied containing questions as to what church she was a member of, and what church she attended.

The state board of education declares "positively and emphatically, that these practices, wherever they arise and whomsoever they affect, are diametrically opposed to the Constitution of the State, which forbids any discrimination because of religious faith. Such discriminations are against the spirit of our institutions and are especially harmful in our school system. It is to be hoped that by the adoption of this memorandum report the state board of education will serve notice upon the school men and the school boards of the state that it deprecates such discriminations, and will do everything in its power to discountenance and discourage them."

The children of school age in Indiana increased in number during the school year 1916-17 over the previous year by a total of 6,020, according to statistics issued by the State Department of Public Instruction. The total number of children between the ages of 6 and 21 years reported from the counties was 774,642, while the total for the preceding year was 768,622. In this total the state school authorities included the children within the school-age limit who are regularly employed and those who are not regularly employed. There are 79,567 males and 55,736

## Three Points of Safety

**Y**OUR pupils will be kept in a more contented frame of mind by knowing that their personal belongings are securely protected in

## Berger Steel Lockers

The three-point locking device assures safety from meddling. As shown in illustration, the door is securely fastened at the center and near the top and bottom. The three fastenings are made simultaneously by the movement of the operating cam at the center. No mischievously inclined pupil can pry open the door with a shoe hook, jack knife or similar instrument.

Berger Steel Lockers will promote sanitation and neatness. They are strongly constructed for hard service, fire retardant, flexible in arrangement, attractive in appearance, well ventilated, require small floor space, involve no maintenance expense and are reasonable in cost.

*Our new locker Catalog, now on the press, covers in detail every point of construction. Do you want a copy reserved for you?*

Ask for Catalog Y. A. S.

**The Berger Mfg. Co., Canton, O.**

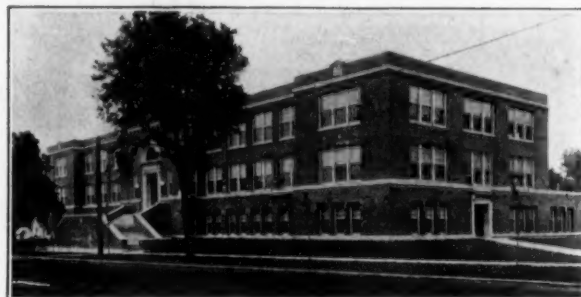
Branches: Boston, New York, Philadelphia, Chicago, St. Louis, Minneapolis, San Francisco

Export Dept.: Berger Bldg., New York City, U. S. A.

The view shows the inside of the door, being taken from the back after removing the rear panel.



## SHADE WITHOUT SHADOW



### FARIBAULT PUBLIC SCHOOLS

JOHN MUNROE, Superintendent

Faribault, Minnesota,  
January 8th, 1916.

Perennial Shade Company,  
Faribault, Minnesota.

Gentlemen: Your Perennial Window Shade appears to me to be the most efficient and practical shade that I have ever seen for schoolroom purposes.

As it will raise from the bottom or lower from the top, it is possible to regulate the light and sun rays in our rooms just as we wish.

Also as your shade will permit of ventilation without subjecting those sitting near to a direct draft, it seems ideal for a school.

We like them very much and hope to use them in all our buildings. At present I would like to have you go ahead and fit out the McKinley school in this city.

Yours very respectfully,

(Signed) JNO. MUNROE.

### PERENNIAL SHADE CO.

School Department.

Faribault, Minn.

**J. W. HULME CO.** 338 MINNESOTA ST.  
ST. PAUL, MINN.

### IDEAL ADJUSTABLE SCHOOL SHADE

females regularly employed and 10,585 males and 16,632 females who are unemployed.

The total number of children in the state between the ages of 14 and 16 year is 116,015, while last year's report gave 110,917. The total number of white boys is 390,866 and the total of white girls 367,542. The total number of colored boys is 8,130 and of colored girls 8,104.

The will of the late John D. Ridenour, who died June 8, leaves a large part of his fortune to the schools of Williamsport, Indiana, and to prairie Township. A 320-acre farm in the latter township is given to the schools as an endowment, the land to be held in perpetuity by the township trustees and the income to be used in providing teachers.

The remainder of the estate, which is estimated at approximately \$100,000 is willed to the Williamsport school board to advance the educational interests of the town.

Muskogee, Okla. The board has opened a summer school where pupils who have failed, are conditioned or desire to make additional credits in any subject in the curriculum, may have opportunity to do so. Credits for advanced work may be secured by attending a summer normal, the state university or by passing an examination on work done with a special teacher.

The Department of Vocational Activities of the New York Schools, which is in charge of Dr. Wm. L. Ettinger, has offered to co-operate with the high schools as far as possible in placing pupils in commercial positions. It is the opinion of the vocational directors that business conditions make it necessary for a number of boys and girls to fill places made vacant by those who go into military service. There is great need for supervision of students so that they may not enter undesirable employment or come under unwholesome influences. The high school co-ordinators are in close touch with the business world and can investigate these places, safeguard the interests of the pupils and supervise their work.

To properly facilitate the work and to provide for permanent records of the pupils, it is requested that each high school principal give complete information in regard to boys or girls who desire to be registered for summer employment. The plan has two advantages, namely, the plac-

ing of pupils with business houses known to have good working conditions, and second, the assurance that students will return to school at the end of the summer because of the personal touch with the pupil and the employer.

A shift system intended to lengthen the school day and to provide for increased accommodations is proposed by Supt. F. E. Spaulding of Cleveland. The plan which was carried out at Minneapolis where Dr. Spaulding formerly was located, resulted in an increase of the capacity of the average school from 25 to 50 per cent.

Briefly, the shift system is as follows:

Two classes are placed in one schoolroom for a period of seven hours. This gives three and a half hours to each class, not all at one time, and comes within about 45 minutes of the full amount of time given to academic subjects.

To make up the 45 minutes, a supplementary recitation room is provided. A single room of this kind will provide for the additional time needed by six classes. Four rooms for six classes in all regular work will give an increase of 50 per cent on the regular capacity.

When the pupils are not in classes and it is not desirable for them to go home, the assembly rooms and playrooms can be made use of. One advantage of this system over the Gary idea is that it keeps the children always under the same teacher, altho they may change classrooms.

In the lower grades where the hours are short, two classes may be successfully taught in one room, thus doubling the capacity. The need for special play teachers means a slight additional maintenance expense but is a small matter compared with the advantages.

A commission of fifteen members, headed by Dean Coffin of the College of Education, University of Minnesota, Minneapolis, has been named by the governor to work out better methods for distributing state aid to public schools. The fourteen members are:

Jacob R. Jacobson, Madison; Dr. Frank A. Weld, Moorhead; W. F. Schilling, Northfield; J. F. Vaughn, Chisholm; E. C. Hall; J. B. Arp; George Franklin, Deer River; Mrs. Gertrude E. Skinuner, Austin; W. H. Putnam, Red Wing; Mrs. H. H. Witherstine, Rochester; P. H. McGarry, Walker; James N. Madigan, Maple Lake;

Dr. S. F. Kerfoot, Hamline University; Ole Sageng, Dalton.

It is planned to have the commission give at least a portion of its time to an investigation of the school situation, and the solution of the state aid problem, including such questions as non-resident pupils, types of schools, enrollment per teacher and the advisability of placing the aid system upon a permanent tax rate basis.

West Allis, Wis. Summer classes have been opened in the Lincoln School. All subjects are taught from the third to the eighth grade inclusive.

A rural school survey has been ordered by Governor Gardner of Missouri to furnish data on the efficiency of the school system, particularly in the matters of physical conditions and methods of instruction.

Ignoring Supt. Wm. H. Maxwell's plea for delay, the New York City board of education has ordered the extension of the Gary plan to fifty more schools in the city. The Gary program displaces a schedule of new buildings proposed by the board of superintendents. The opposition of Dr. Maxwell was based on the fact that the Gary plan is on trial and that it has not been conclusively proven that the plan is a good one for the city. Mr. Maxwell is of the opinion that no amount of Garyizing can make up for a lack of sufficient accommodations and inferior school work.

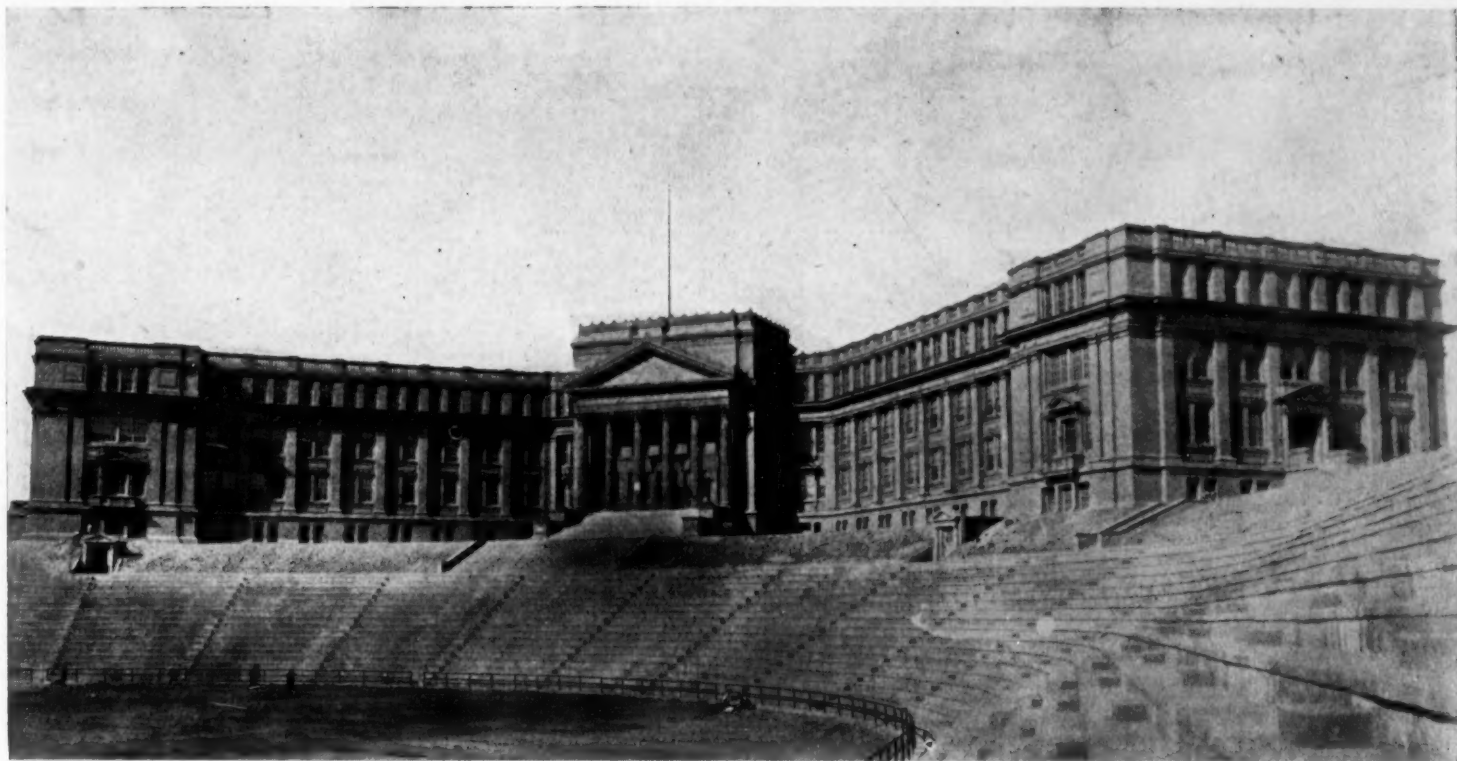
Pasadena, Cal. A summer efficiency school has been opened under the direction of the Parent-Teacher Federation. The work covers recreation, agriculture, knitting and drying, story hours, canning, Red Cross work, fruit and vegetable exchanges.

Boys and girls are organized into reserve corps, each school a company with its own officers, and with certain compensation in some phases of the work.

Supervision is to be done by five men and two women, a man at each center. In addition, volunteers are solicited from the navy league and the parent-teacher association.

Dubuque, Ia. Three vacation schools have been opened for the benefit of pupils who are in need of special help in making up a half year's work.

## ONE OF THE FINEST SCHOOL BUILDINGS IN THE WORLD



TROST & TROST, Architects

THE EL PASO HIGH SCHOOL, EL PASO, TEXAS

L. B. McCHESNEY, Plumber

### The Superintendent of this School Said:

"The plumbing is to be the best that modern science can devise,"  
*and it is!*

### The Fixtures installed and their description:

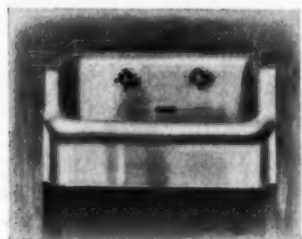


M-3030

The Clow "Auto-Pro-jecto" automatic syphon-jet closet, with quartered oak seat, Madden automatic valve, galvanized iron closed tank, galvanized iron flush pipe, "Renton" floor flange, bolts and gasket.

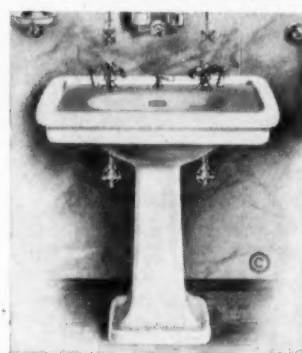
M-4000

The Clow Adamantose Lavatory and pedestal with nickel-plated wall supports "Eureka" pop-up waste with china tipped handle. Fuller pattern faucets,  $\frac{3}{4}$ " supply pipes with stop valves and  $1\frac{1}{2}$ " trap to wall.

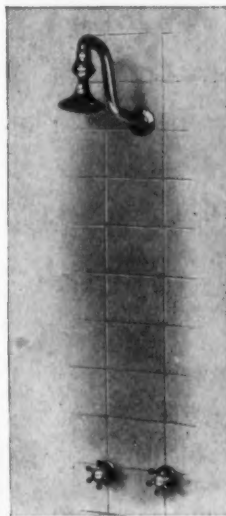


M-4985

The Clow solid porcelain domestic science sink for recess, back and ends ground smooth to set below stone top, nickel-plated compression faucets, soap dish, chain stay and  $1\frac{1}{2}$ " trap.

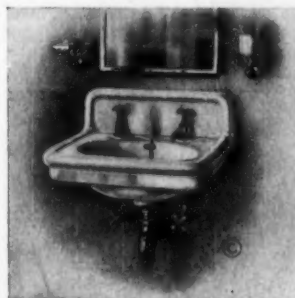


M-4000



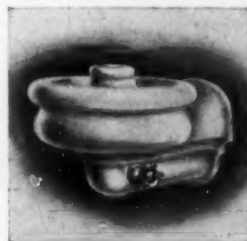
M-3667

The Clow nickel-plated shower bath with 5 inch cast brass adjustable ball-joint shower head with removable face,  $\frac{3}{4}$ " goose-neck supply from wall, concealed mixing chamber and  $\frac{3}{4}$ " concealed compression valves with nickel-plated wall flanges and china index plates.

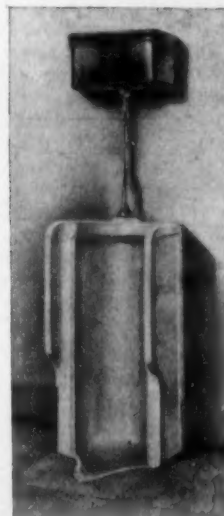


M-4135

The Clow Adamantose Lavatory, with integrant back and concealed hanger, nickel-plated compression faucets,  $\frac{3}{4}$ " supply pipes with stop valves and  $1\frac{1}{4}$ " trap to wall.



M-4535



M-3400

The Clow solid porcelain Urinal with integrant shields and lipped extension base, oak automatic tank, nickel-plated flush pipe and spreader, waste plug and coupling, nickel-plated brass bee-hive strainer.

M-4535

The Clow Madden patent Adamantose Bubble Cup Drinking Fountain, with integrant trap housing, self-closing supply valve, regulating valve and combination supply and waste fitting.

Incorporate CLOW plumbing in your specifications

## JAMES B. CLOW & SONS

SALES OFFICES:

New York Detroit Milwaukee St. Louis  
Denver Minneapolis San Francisco

Established 1878

534-536 So. Franklin St. CHICAGO

WORKS:

Chicago, Ill. Newcomerstown, Ohio  
Coshocton, Ohio



## As Good as the Catalog Describes Them

Truth in advertising demands that the printed word shall not even exaggerate the article described, although many manufacturers still hold that a little "poetic license" in description is permissible in business.

The Kewaunee Book, like Kewaunee Furniture, is straight realism. There is no veneer on either. A recent letter from a discriminating Principal says that "it gives one pleasure to find that the articles ordered are as good as the catalog describes them."

The Kewaunee Book, by the way, will interest School Executives. It pictures and describes what we believe to be the only truly "scientific" line of Laboratory Furniture manufactured in America today.

**Kewaunee Mfg. Co.**  
LABORATORY FURNITURE EXPERTS  
**KEWAUNEE, WIS.**

NEW YORK OFFICE

70 FIFTH AVENUE

TEL. CHELSEA 3909

BRANCHES: 460 E. Ohio St., Chicago. 44 E. Chestnut St., Columbus, O.

## Use Holtzer-Cabot Bells for Program Clock Systems



### CLASS ROOM BUZZER

The ideal class-room signal. Metal case, dust proof, enclosed terminals, triple silver contacts. Agreeable tone, low but penetrating. Black finish. Catalog No. 151045.

### CORRIDOR BELL—

Metal case—dust proof—enclosed terminals—triple silver contacts.

Loud clear tone—can easily be heard above the noise in corridors.

Six-inch or eight-inch size best adapted for corridor use. Catalog No. 151020.

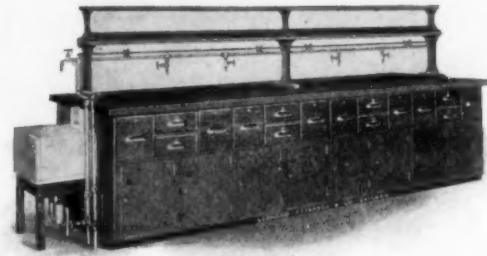
### SCHOOL YARD GONG—

Designed specially for outdoor use. Absolutely watertight. Mounted on heavy mat, provided with hood and guard as a protection from missiles and to prevent birds from nesting in gong. Catalog No. 151035.

Holtzer-Cabot Bells have been specified for years as a standard for use in connection with program bell systems. They have stood the test of time.

We have just published a very complete bulletin, No. 15E1. If you have not received your copy, send for it today.

**THE HOLTZER-CABOT ELECTRIC CO.**  
BOSTON, MASS.  
6161-65 80 STATE ST. CHICAGO 101 PARK AVENUE, NEW YORK 1104 UNION TRUST BLDG. BALTIMORE



## QUALITY AND UTILITY

We specialize in Laboratory Furniture. Any educational institution that insists on Quality and Utility in Laboratory Furniture, Domestic Science and Manual Training Equipments provides its students with standards of value. We guarantee Quality and Utility.

### FALES LABORATORY DESK

We are the exclusive manufacturers of the Fales Laboratory Desk—patent applied for—the most efficient and economical desk in the market. Write for the descriptive circular.

Send for Domestic Science and Manual Training Catalog No. 8 and Laboratory Furniture Catalog No. 9. Call at our display rooms.

### LEONARD PETERSON & CO., Inc.

Manufacturers of Guaranteed Laboratory Furniture

1234-1248 Fullerton Avenue

Chicago, Ill.

New York Office: 70 Fifth Avenue, New York City

## Practical Experience + Scientific Knowledge



CENTRAL PARK SCHOOL, TOPEKA, KANS.

Since the establishment of our business over forty years ago we have devoted our entire attention to the proper Heating and Ventilating of schools only. We are SPECIALISTS in this line of work.

We are Engineers, Manufacturers and Contractors, thus making it possible for us to design, manufacture and install complete heating plants in any school no matter how large or how small.

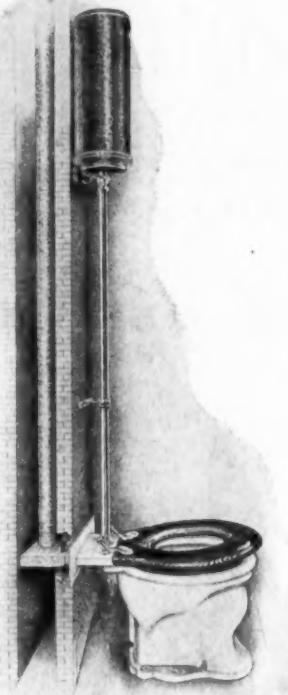
Write us for the location of a number of schools in your vicinity heated by "The American System" of Fresh Air Warming and Ventilating (Blower System).



TRADE MARK

**AMERICAN FOUNDRY & FURNACE CO.**  
BLOOMINGTON, ILLINOIS

# WE SPECIALIZE ON PLUMBING FIXTURES FOR SCHOOLS



Regardless of what the conditions may be, we will help solve the plumbing problem.

It often happens that the toilet room is neglected because those in authority hesitate to make any changes, thinking that it is impossible to remedy the trouble.

We could cite hundreds of instances of this kind. After carefully analyzing the situation, certain suggestions were made by our experts, and the toilet room made clean and sanitary.

*What's your trouble? Write us. Ask for catalog.*

**N. O. NELSON MFG. CO.**  
EDWARDSVILLE, ILLINOIS

*Branches and  
Selling Agencies*

Los Angeles, Cal.  
Pueblo, Colo.  
Salt Lake City, Utah

Memphis, Tenn.  
Houston, Tex.  
Butte, Mont.

Birmingham, Ala.  
New Orleans, La.  
Spokane, Wash.



## BUILDING AND FINANCE.

The citizens of St. Paul, Minn., at a recent election gave their approval to a bond issue of \$3,000,000 with which to provide funds for the remodeling of out-of-date, insanitary and unsafe school buildings and to provide enough new grade and high schools to properly house the school children.

It is estimated that satisfactory school buildings can be constructed in St. Paul for \$7,000 a room for elementary schools and \$7,500 a room for intermediate schools. Nine old grade schools will be wrecked and replaced with modern buildings. The building program for the first two years will include four intermediate schools, a technical high school and an elementary school.

The school board of Minneapolis, Minn., has opened sixteen school buildings for community use during the summer months. Nine of the buildings are open evenings, for the work of adults in the gymnasium and on the playgrounds. Story-telling, folk dancing and industrial work are offered to women and children. Men are given instruction in handball, volley ball, indoor baseball, basketball and apparatus work.

Detroit, Mich. The school board has failed to receive bids on a total of 35,000 tons of coal for the winter supply. Of the two bids submitted, one was accepted for 10,000 tons at \$8.50 a ton, \$5.25 more than the price quoted last year. The amount contracted for will take care of the schools until January when it will be necessary to make other arrangements.

Hamilton, O. The board has granted the unrestricted use of school buildings and property for military and patriotic organizations during the war.

Schools thruout New England are delaying the purchase of fuel for the coming winter pending the efforts of the New England Committee on Coal to formulate some plan of action. At a recent conference of public school business officials, a committee was appointed with Edward C. Baldwin as chairman, to study the matter. It was brought out that the situation in its effect upon schools and other institutions is serious, but not alarming. It can best be handled thru

organized effort and thru co-operation with the committees of the Council of National Defense.

The New England Committee is unanimous in the opinion that the purchase of coal for the schools should be delayed until the situation has improved. It is proposed that a plan be arranged by which the needs of the schools can be consigned direct from the coal fields thru a local dealer to be selected by the Committee, with whom contracts can be made for handling, hauling and storing for the individual schools.

Colorado Springs, Colo. The school board proposes to employ a business manager to look after the janitorial force, to direct the repair of school buildings and to keep records of the coal used by each building. The change is in the direction of greater efficiency and the elimination of waste in both labor and material.

A mandamus suit is proposed by the attorney of the newly elected Chicago board to compel the city treasurer to honor pay vouchers of employes as passed by the members in session. The treasurer bases his action on the fact that it has not been legally established just who the members of the board are. The situation threatens to close the summer schools and to hold up construction and repair work on school property.

The New York City board of education is to be called upon again to defend the legality of its action in retaining Supt. W. A. Wirt as a special advisor. A recent ruling of the corporation counsel is to the effect that the entire scheme is reasonably clear and that it does not contemplate any professional advice from any source other than the sources prescribed by the statute. The board is proceeding not only to accept such advice but action has been taken thru the committees making Mr. Wirt the final authority on the alteration of schools for the adaptation of the Gary plan. The building committee has appointed Mr. Martin a committee of one to whom the building superintendent will submit all proposals for changes for consideration and recommendation as to final ratification. It is specified that none of the changes shall radically alter the organization of any school but shall include any

slight increase or decrease of classes which follow upon such changes in organization.

In defining the duties of the board, the corporation counsel says that if Mr. Wirt's duties are pedagogic and supervisory, the board may not appoint or employ him because the city charter defines the supervisory staff and there is no provision for his appointment. The board may not employ experts if the legislature has forbidden it to do so, and the charter has so clearly specified who the experts are that the employment of others is to be considered illegal.

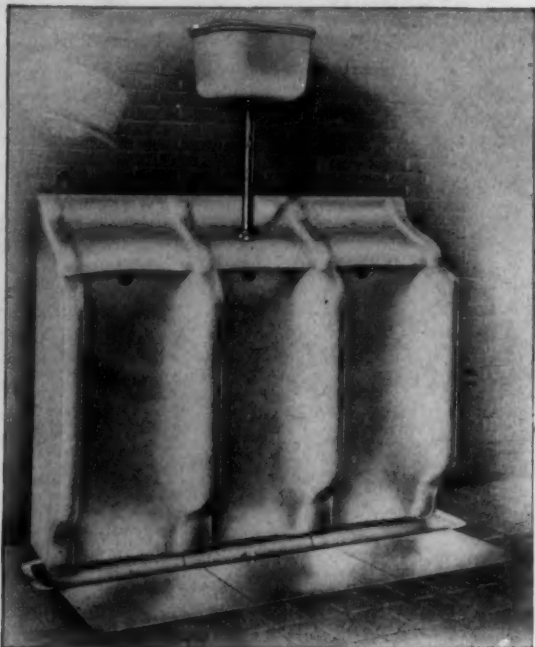
The board of education of Jefferson County, Ala., has created fifteen new offices at \$1,500 each. Under the new plan, fifteen school principals are allowed an additional sum not exceeding \$300 each, in return for which they will do the supervising work in their districts. The total sum appropriated must not exceed \$4,500 per annum.

Under the plan formerly in use, there were two county supervisors at \$2,500 each. The new method discontinues one supervisor. In the results to be obtained, the board feels that much more than this expense will be justified, in that with the smaller districts, the supervisor will be able to maintain a constant supervision over each school, while under the two-supervisor plan, it was impossible to cover the field under two or three months. The result has been that the schools have had infrequent and imperfect supervision.

The Wisconsin state legislature has enacted a law requiring the city of Milwaukee to buy all supplies and equipment thru a central purchasing board. The schools come within the provisions of the act and the secretary of the board of education is a member of the municipal board.

Massillon, O. The board has adopted a salary schedule providing increases of \$100 to \$150 for grade teachers and bonuses of \$50 for approved credits from a summer course.

Under the schedule teachers will begin at a minimum salary of \$500 and receive increases of \$50 until a maximum of \$900 has been reached after nine years. Cadet teachers will receive \$200 as formerly. The schedule is effective September, 1917.



## Are Your Toilets Ventilated?

No, dear reader, we do not mean toilet rooms, we mean the fixtures themselves. If the toilet fixtures are ventilated all obnoxious odors can be eliminated. Are your toilets ventilated?

### "EBCO" SANITARY FIXTURES

have as their fundamental idea the ventilation of toilet rooms thru the fixtures themselves. They eliminate ventilating fans, disinfectants, etc.



"EBCO" FIXTURES are scientifically designed, then correctly built and therefore give the satisfaction they do. We can refer you to many school boards who are satisfied and pleased with "EBCO" FIXTURES.

*Write us about your plumbing problems and have our engineering department help you.*

## THE D. A. EBINGER SANITARY MFG. CO.

New York City, 101 Park Ave.

COLUMBUS, OHIO

Minneapolis, Minn., 1st Nat. Soo Line Bldg.



### PERSONAL NEWS OF SUPERINTENDENTS

Supt. J. R. Clements has been re-elected head of the school system at Lancaster, O. The appointment is for two years and carries with it a salary of \$2,500.

F. H. Wood of Carthage, Mo., has been appointed superintendent of schools at Okmulgee, Okla., at a salary of \$3,500 per year. He succeeds N. O. Hopkins.

Herbert J. Chase of Gardiner, Me., has been appointed superintendent of schools at Milton, Mass., to succeed Frank Marsh, resigned. Mr. Marsh had served as head of the schools since 1912 and had instituted a number of educational reforms.

The salary of Supt. R. E. Laramy of Easton, Pa., has been raised from \$3,000 to \$3,500.

Alfred L. Hall-Quest, for three years professor of secondary education in the University of Virginia, has become head of the Cincinnati College for Teachers and inspector of high schools. Mr. Hall-Quest is a graduate of Princeton University and has taken postgraduate work at the University of Kansas.

E. J. Klemme of Ellensburg, Wash., has been offered a professorship in the State Normal School at Bellingham. The Bellingham Normal is the largest in the state and has an enrollment of nine hundred students for the summer session and 1,200 for the winter.

Mr. W. B. Arbaugh has been re-elected superintendent of schools at Ypsilanti, Michigan for a term of three years, with an increase of \$300.00 per year. Mr. Arbaugh has been connected with the schools during the past nineteen years, for four and one-half years as principal of the high school, and during the past fourteen and one-half years as superintendent. He has been for several years instructor in the Michigan State Normal School, and assistant director of practice teaching.

Mr. E. J. Llewellyn, for several years past superintendent at Mount Vernon, Ind., has been elected superintendent at Newcastle.

Berlin W. Tinker of Waterbury, Conn., has been re-elected superintendent for the coming year.

L. Thomas Hopkins, of Yarmouthport, Mass., has been elected superintendent of schools at Marblehead.

Supt. C. E. Fisher of Westfield, Mass., has been re-elected.

Supt. N. O. Hopkins of Okmulgee, Okla., on June 30th, retired permanently from school work after a service of eight years in the Okmulgee schools.

A. O. Thomas of Lincoln, Neb., has been appointed State Superintendent of Public Instruction for Maine.

Supt. Henry P. Emerson will undoubtedly continue in his present position until the completion of his quarter century of service which will occur in January, 1918. A report has become current that Supt. Emerson contemplated retiring at the end of the school year.

Supt. Wm. A. Wirt of Gary, Ind., has been re-elected with a salary of \$6,000 per year.

E. H. Lindley, head of the philosophy department of Indiana University, has been elected president of Idaho University.

Jerome O. Cross, formerly principal of the high school at Pasadena, Cal., has resigned to become superintendent of schools at Fresno.

Burton O. Greening, for thirteen years superintendent of the Eveleth, Minn., schools, has resigned.

C. P. Briggs has been made assistant superintendent of schools of Rockford, Ill. Mr. Briggs will continue as principal of the high school.

The Cleveland board of education has approved the recommendation of Supt. F. E. Spaulding that Edward L. Harris be appointed to the principalship of the Central High School. Mr. Harris is one of the three assistant superintendents whose positions were declared vacant.

Supt. Frank L. Smart of Davenport, Ia., has been re-elected with an increase of \$300 in salary.

William F. Sims of Saugus, Mass., has been elected superintendent of schools for the Webster-Dudley School Union, Webster, Mass.

L. A. Butler, for the past two years superintendent of schools at Iron Mountain, Mich., has resigned to become head of the Central State Normal Training School, Mt. Pleasant.

The salary of Supt. R. E. Laramy of Easton, Pa., has been raised from \$3,000 to \$3,500 per year.

Supt. W. A. Walls of Martins Ferry, O., has been re-elected.

The salary of Supt. F. M. Shelton of Elyria, O., has been raised to \$2,800.

Supt. L. E. York of Massillon, O., has been re-elected for a four-year term, with a salary ranging from \$2,750 to \$3,250.

Dr. G. E. Snively, registrar of Allegheny College and Director of the Summer School, has been granted a year's leave of absence to take up his work as director of the Red Cross Society in the states of Georgia, North Carolina, South Carolina, Florida, and Tennessee. Dr. Snively will have his headquarters at Atlanta, Ga.

James A. Page, veteran educator and retired school teacher, died at his home in Cambridge, Mass., on July 7, after a brief illness. He was 91 years old. Mr. Page had been connected with the Dwight School, Boston, since 1846 and had been headmaster from 1850 to 1904.

### DR. SPAID BECOMES COMMISSIONER OF EDUCATION FOR DELAWARE.

A. R. Spaid, formerly superintendent of schools in Dorchester County, Maryland, has been appointed Commissioner of Education for Delaware, to succeed Charles A. Wagner.

Mr. Spaid is a native of West Virginia. He is a graduate of Wilmington College, Wilmington, O., and of Haverford College, Haverford, Pa., and was recently given the degree of Master of Arts by Columbia University.

About nineteen years ago Mr. Spaid became connected with the educational system of New Castle County, Delaware, when he became principal of the DuPont School. He resigned to become superintendent of the rural schools of the same county. Later he went to Cambridge, Md., where he served as superintendent of the rural schools in Dorchester County and from there he went to Columbia University to take up special studies.

Und  
giving  
ment  
count  
school  
not b  
affect  
Price  
Count  
The  
4a)  
visory  
truste  
not co  
Sayles  
provid  
ent, a  
Price  
Count  
Goo  
jacent  
the K  
where  
promis  
inclus  
17 of  
City o  
Gov  
Und  
11), a  
It is h  
lic sch  
year  
primar  
the su  
1914, c  
mittee



Wm. B. Ittner,  
Architect

FOREST AVENUE HIGH SCHOOL, AUSTIN, TEXAS

Sanguinet Bros.  
Plumbing Contractors



## "WOLFF PLUMBING" retards School Building Depreciation

Don't use substitutes for Wolff Plumbing. You can't afford to let your schools' reputation suffer by putting in cheap, unsanitary plumbing, with its endless train of expense. Wolff plumbing fixtures last as long as your building.

ESTABLISHED 1855

**L. WOLFF MFG. CO.**

Manufacturers of  
**PLUMBING GOODS  
EXCLUSIVELY**

General Offices: 601-627 W. Lake St.  
**CHICAGO**

# SCHOOL LAW

## Schools and School Districts.

Under acts 34th Legislature of Texas (c. 36), giving county school trustees general management and control of free public schools in each county, the question of annexing territory of a school district abolished to other districts need not be submitted to a vote of districts to be affected, in absence of a specific requirement.—Price v. County School Trustees of Navarro County, 192 S. W. 1140, Tex. Civ. App.

The acts 34th Legislature of Texas (c. 36, § 4a), giving the district court general supervisory control over the action of county school trustees in creating, etc., school districts, held not controlled by section 10 of the act (Vernon's Sayles' Ann. Civ. St. 1914, arts. 4509, 4510); providing for appeals to the state superintendent, and thence to state board of education.—Price v. County School Trustees of Navarro County, 192 S. W. 1140, Tex. Civ. App.

Good faith is first requisite for attaching adjacent territory to city school district pursuant to the Kansas Gen. Statutes of 1915 (§ 9129), and where persons not interested were induced by promises to sign the petition does not warrant inclusion of territory.—Oakland School Dist. No. 17 of Allen County v. Board of Education of City of Humboldt, Allen County, 163 P. 800, Kan.

## Government Officers, and District Meetings.

Under the Missouri Constitution (art. 5, §§ 2, 11), and the Revised Statutes of 1909 (§ 10918), it is held, that the state superintendent of public schools can be elected only in every fourth year commencing with 1878, and where a primary election was held August 1, 1916, and the superintendent then in office, and elected in 1914, died September 18, 1916, a state party committee had no authority to certify a candidate

for such office for election November 7, 1916.—State ex rel. Evrard v. Roach, 192 S. W. 745, Mo.

## District, Property, Contracts, and Liabilities.

Where a school board altered a building contract, providing a different roofing material, not increasing cost or changing efficiency, and the original contract provided for such changes, the action was valid, altho steps required to be taken before letting original contract were not taken.—Pung v. Derse, 162 N. W. 177, Wis.

Under the Washington laws a school building contractor's bond which failed to comply with Rem. Code 1915 (§ 1159), the surety cannot be held liable for claims of materialmen, under a provision in the bond rendering the sureties liable for such claims becoming valid liens on the property. There is no statute making them liens.—School Dist. No. 75 of Pierce County v. Qualls, 163 P. 761, Wash.

A school district building contractor's bond not in compliance with the Washington Rem. Code, 1915, (§ 1159) and hence not statutory, is not validated as to claims by materialmen by section 777, providing that statutory bonds shall not be void for want of form.—School Dist. No. 75 of Pierce County v. Qualls, 163 P. 761, Wash.

Where the contract between a school district and a builder for a school building provided that before any damages could be collected they must be audited and certified by the architect, the school district could not maintain an action in the absence of certification of the damages by the architect.—School Dist. No. 75 of Pierce County v. Qualls, 163 P. 761, Wash.

Where Michigan plaintiffs agreed to and did manufacture interior finish in conformity with the plans and specifications of the architect, which finish was furnished to the defendant contractor, they were "subcontractors."—People v. Connell, 161 N. W. 844, Mich.

Under the Michigan Public Acts 1905 (No. 187, § 2), the notice of a subcontractor that he had furnished materials to a contractor is sufficient to sustain a claim for compensation.—People v. Connell, 161 N. W. 844, Mich.

## District Debt, Securities, and Taxation.

Under the Alabama ordinance providing for an election at which the ballots should read "for

public schoolhouse bonds," and the contrary, the mere omission of the word "house" from the ballots did not affect the validity of the election.—Dent v. City of Eufaula, 74, So. 369, Ala.

Where the board of education of an independent school district prepared a budget, pursuant to the Oklahoma Sess. Laws 1915, C. 192, of amount required to be raised by taxation, and thereafter duly submitted an excess levy which was carried, and thereafter set aside a fund from another source as a building fund, the excise board could not annul or vacate its proceedings.—Board of Education of City of Sapulpa v. Corey, 163 P. 949, Okla.

Gross production tax on oil and gas paid the county treasurer under the Oklahoma Sess. Laws 1915, (c. 107, art. 2, subd. "a," § 4), and Sess. Laws of 1916, (C. 39, § 4), may be used by the board of education of a city of the first class to construct and equip a high school building, which action may not be annulled by county excise board.—Board of Education of City of Sapulpa v. Corey, 163 P. 949, Okla.

## Teachers.

One granted a state teacher's certificate under the Florida Acts 1913 (c. 6540), is entitled to a life certificate on complying with Acts 1911, c. 6164 (Comp. Laws 1914, § 371), and there should be no unjust discrimination between those entitled to life certificates, whether based on state certificates issued under Gen. St. 1906, § 370, or under Acts 1913, c. 6540.—State v. Sheats, 74 So. 638, Fla.

Under the Tex. Civ. App. Vernon's Sayles' Ann. Civ. St. 1914, art. 2824, empowering trustees of school districts to fix times and terms of school, the trustees could not by making an eight-months' contract fix the length of term without regard to the funds of the district.—Jones v. Dodd, 192 S. W. 1134, Tex. Civ. App.

Under the New York Equal Pay Law, teachers are divided into two grades, one of which is paid an annual salary, and the other for actual service rendered, and those paid an annual salary should have deductions for absence without leave, based upon such annual salary.—Glucksman v. Board of Education of City of New York, 164 N. Y. S. 351, N. Y. Mun. Ct.

## The "Ultimate" in Sanitary Fixtures

for  
School  
Playgrounds

**WATROUS**  
SANITARY  
PLUMBING  
FIXTURES  
PATENTED  
**DUOJET**

for  
School  
Buildings

The name "Watrous" on drinking fountains, lavatories, closets, urinals, liquid soap fixtures, etc., indicates a master achievement in the manufacture of sanitary, most efficient plumbing equipment. Special attention has been paid for years to the needs of public institutions. Safe-guarding of the health underlies the principle of superior construction in all Watrous products.

### Practical and Economical

Watrous Soap Fixtures are made in a number of serviceable styles. Easy to install and to fill. Do not drip. Economy of operation that is surprising.

Best results are obtained from use in the fixture of Watrous Liquid Soap. A superior grade of easy flowing, pure, cleansing soap prepared under our supervision.



### Best for Schools

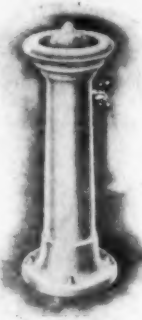
The Watrous pedestal drinking fountain is made of heavy, indestructible vitreous ware. In design most beautiful and symmetrical and free from corners and crevices. So easy to keep clean.

The water shoots out from the bubbler by an easy turn of the key. Also furnished with loose key stop for continuous flow.

*Let us figure on your requirements. Write for descriptive literature*

**The Imperial Brass Manufacturing Co**

1215 W. Harrison St., Chicago, Ill.

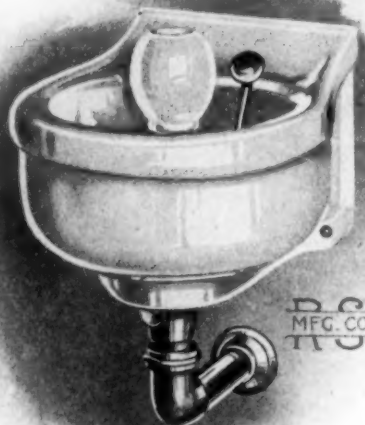


## "Faultless Fountains"

The cool sparkling water ensuing from the jet makes it a "FOUNTAIN."

The perfectness in its construction makes it "FAULTLESS."

**RUNDLE - SPENCE BUBBLERS ARE**



**E**laborate enough for the most distinguished building.  
Economical enough for the simplest structure.

*Complete catalog cheerfully furnished.*

**RUNDLE - SPENCE MFG. CO.**  
52 Second Street MILWAUKEE, WIS.

In the N. Y. Equal Pay law the word "annual" means yearly.—Glucksman v. Board of Education of City of New York, 164 N. Y. S. 351, N. Y. Mun. Ct.

Under the New York Equal Pay Law, it is not use of public funds for private purposes to predicate absence deductions from teacher's salary on basis of 365 days to year; such teacher being paid annual compensation.—Glucksman v. Board of Education of City of New York, 164, N. Y. S. 351, N. Y. Mun. Ct.

Under the N. Y. Equal Pay Law, ratable deduction from teacher's salary on account of absence is proportional deduction or proportionate rate upon constant ratio adjusted to due relation, and not arbitrary, capricious, whimsical, or unreasonable.—Glucksman v. Board of Education of City of New York, 164, N. Y. S. 351, N. Y. Mun. Ct.

Under New York Equal Pay Law, teachers compensated on annual basis are entitled to deductions for absence on same basis, since otherwise deductions would not be ratable as required by law, so that for each day's absence board is entitled to deduct 1-365 of annual salary.—Glucksman v. Board of Education of City of New York, 164, N. Y. S. 351, N. Y. Mun. Ct.

The State Constitution (art. 9, § 1) and the Greater New York Charter, §§ 1061, 1062, 1068, 1091, 1543, did not vest the board of education with power by absence deduction, by law or otherwise, to change nature of teacher's employment, and convert her yearly salary into per diem or monthly one.—Glucksman v. Board of Education of City of New York, 164, N. Y. S. 351, N. Y. Mun. Ct.

The greater New York Charter, § 1092, as previously embodied in section 1083, c. 378, Laws 1897, requiring deductions from teacher's salary to be used to create a pension fund for retired teachers, was repealed by Laws 1905, c. 661, and no longer constitutes authority for deduction per day of absence of 1-25 of month's pay.—Glucksman v. Board of Education of City of New York, 164, N. Y. S. 351, N. Y. Mun. Ct.

A statutory contract of employment for a fixed salary between a board of education and a teacher cannot be increased or decreased by

either party.—Glucksman v. Board of Education of City of New York, 164, N. Y. S. 351, N. Y. Mun. Ct.

### MISCELLANEOUS SCHOOL LAWS.

The 1917 legislature of Minnesota has enacted a law which revolutionizes the method of electing school boards. Under the old law, oral nominations were made on the eve of election. The new law places candidates on the same basis as candidates for county officers. The law provides that filings must be made not more than thirty nor less than ten days before the annual school election. The law reads as follows:

Any person desiring to be a candidate for a school district office at the annual meetings of such district shall file with the clerk of such district, an application to be placed on the ballot for such office, or any five voters of such district may file such application for and on behalf of any qualified voter in the district that they desire shall be such candidate. Such application shall be filed not more than thirty nor less than twelve days before the annual school meeting. The clerk of the district in his notice of the annual meeting shall state the names of the candidates for whom applications have been filed, failure to do so, however, shall not affect the validity of the election thereafter held. The clerk shall prepare at the expense of the district necessary ballots for the election of officers, placing thereon the names of the proposed candidates for such office, and with a blank space after such names, and such ballots shall be substantially prepared as are ballots for the general election, but without the necessity of having the ballots marked or signed as official ballots.

The teachers' retirement law of Massachusetts has been amended to provide that teachers who have become incapacitated mentally or physically may be retired before they have reached the age of 60 years. Any member who has served twenty or more years in the public schools who becomes permanently incapable of rendering satisfactory service, may be retired with the approval of the retiring board and the employing school board.

The Pennsylvania House has passed the Tompkins bill appropriating \$20,000 for the organization of a state-wide retirement system for teach-

ers and employees in the schools. The bill will require a concurrent vote in the Senate.

The bill specifies that the legislature is to make the appropriation for the retirement fund and that the fund may not become operative until July, 1919. The teacher is to pay half of the cost, the state a quarter and the local school district a quarter.

Broad powers are placed in the hands of county superintendents of Illinois under the new district high school law. The law provides that the county superintendent may approve or disapprove the organization of new high school districts. He may recommend and enforce changes in the territory embodied in the petition of taxpayers seeking to organize a new district or he may deny the petition altogether. The county superintendent, the county judge and the county clerk may arbitrarily transfer sections of territory from one district high school to another. The act also abates suits attacking the organization of district high schools.

Seven township high schools were organized under the 1911 act, five of which are operating schools. Suits attacking the Elmwood, Dunlap and Timber high schools are pending.

The high school law which has been in force up until now, was declared unconstitutional. The new law provides that upon the application of fifty voters an election shall be held to form a high school district which may consist of one or more townships or parts of townships as is deemed best. If favorably acted upon this territory shall be known as a high school district and a board of education consisting of five members shall be elected August 1st to provide for the maintenance and conduct of a high school. All the territory not in a high school district shall be known as a non-high school district. Each township not in a high school district must pay the tuition of its pupils attending high school.

The Wisconsin Senate has voted to change the organization and supervision of the industrial board of education in charge of the continuation and evening schools of the Badger State. The Bray bill which was adopted in place of the Albers substitute, provides for a board of nine members, to be appointed by the governor. Three

of the  
playe  
offici  
a me  
A leg  
in ha  
One  
work  
it is  
to re  
the c  
An  
lowin  
Wo  
14 an  
eviden  
ment  
Per  
is sh  
simply  
Th  
Em  
child  
hazar  
limb;  
befor  
Par  
ject t  
Per  
went  
by th  
The  
ing t  
than  
for t  
appor  
city,  
has b  
salary  
Gov  
bill w  
bill r  
"It  
of pul  
mit sa  
per co  
transp  
lating

# She drinks from Bubbles without Troubles

## HOW ABOUT THE BOYS AND GIRLS IN YOUR SCHOOLS?

### Glauber Bubblers

cannot transmit disease. The size of the cup and the location of the jet make contamination resulting from contact between lips and jet absolutely impossible. The cup is a barrier to such contact and the cup is in turn kept clean by spray from the jet.

The self-closing mechanism is also of prime importance. We use our ball-bearing construction, made famous by our "F803" self-closing cocks, which are everywhere recognized as the finest money can buy.



"Her lips and the jet have not touched yet"—and never will.

### Glauber Bubblers

are guaranteed for five years. We have been in business 28 years and our products are the best known on the American market. Because of the quality that makes the guarantee possible we were given seven medals at the San Francisco Exposition. You take no risk in selecting Glauber products.

All Glauber Self-Closing bubblers are convertible into continuous flow bubblers. All Glauber bubblers have flow regulators.

## Insist on having Glauber Bubblers, Showers and Faucets.

THE ONLY KIND GUARANTEED FIVE YEARS

GLAUBER BRASS MFG. CO.

Cleveland, Ohio

of the members must be employers, three employees, and three practical farmers. The ex-officio members are the state superintendent and a member of the industrial commission.

A new child labor law, enacted by the Illinois legislature, is intended to put the state statute in harmony with the national law on the subject. One of the features of the law is that after the work permit is issued by the board of education, it is sent to the employer. The latter is required to return the certificate within three days after the child leaves his employment.

Among the provisions of the law are the following:

Work permits will be given to children between 14 and 16 years of age only after they present evidence of and proof that they have employment assured.

Permits will be issued only when the child is shown to be able to read and to write legibly simple sentences in the English language.

The child must be physically fit to go to work. Employers are prohibited from working such children more than eight hours a day; or in any hazardous employment dangerous to life and limb; or more than six days in any one week; or before 7 a. m., or after 7 p. m.

Parent or guardian violating this law is subject to a fine.

Permits issued before July 1, or minors who went to work before that date, will not be affected by the new law.

The Wisconsin legislature has passed a law fixing the minimum salary of teachers at not less than \$45 per month. To enforce the provision for the minimum salary, it is provided that no apportionment of funds shall be made to any city, village or town unless the common school has been taught by a qualified teacher paid a salary of not less than \$45 a month.

Governor Philipp of Wisconsin has signed a bill which is aimed at high textbook prices. The bill reads:

"It shall be unlawful for any superintendent of public instruction as provided by law to permit sale of text books at a price to exceed fifteen per cent advance on the net prices as so listed, transportation added thereto." Any dealer violating the provisions of this section shall be

guilty of misdemeanor and shall be fined not less than \$25 and not more than \$100.

The Supreme Court of Wisconsin has ruled that the statute covering attendance at continuation school is mandatory and does not appear to admit of any exception. The court held that a strict enforcement of the law may be harmful in some instances but that girls must take the law as it stands. The decision was given in the case of the state against Hilda Freudenberg of Cudahy, who had refused to attend continuation school and was therefore a delinquent child under the law. The girl had attended business college and had been working for some time. She was willing to attend a continuation school in Milwaukee but preferred to take a penmanship course at the business college.

According to Attorney General Webb of California, there is nothing in the laws of the state requiring the certification of high school principals, to the effect that they have had five years of university training. In effect, the ruling makes it possible for a teacher with a business training to become principal of a high school while the teachers under him must have five years' university training. It is the opinion of educators that the law will lower the standard which has been maintained by the high schools and that it will mean the enactment of a new law.

The Supreme Court of Wisconsin has affirmed a decision of the lower court in the Wauwatosa school case, holding that the state superintendent has no authority to require school district boards to repair or rebuild school buildings under penalty of losing state aid for failure to comply with his orders.

The school which is located at State and Thirty-sixth Street, Milwaukee, was ordered remodeled to improve the ventilation and to provide adequate protection against fire.

### TEACHERS' SALARIES.

Oklahoma City, Okla. A general increase of twenty per cent in salary has been granted to grade teachers. Teachers who have been given \$70 per month for the last ten years have been increased to \$85, and in some cases \$90. Teach-

ers who have been receiving \$85 have been raised to \$90.

Brockton, Mass. Increases of \$50 per year have been given to grade teachers.

The Wisconsin legislature has passed a law providing that no teacher shall receive less than \$45 per month.

Los Angeles, Cal. Principals of the four high schools have been given substantial increases, ranging from \$5 to \$30 per month.

The Pennsylvania House has passed the Milliron bill, increasing the minimum salary of teachers in public schools. The schedule provides \$45 for teachers holding provisional certificates; \$55 for teachers holding professional certificates; and \$60 for those who hold permanent certificates.

The Minnesota State Normal Board has raised the salaries of presidents of normals from \$4,500 to \$5,000.

Sandusky, O. Grade teachers have been given increases of \$50 per year until the maximum of \$850 is reached. High school teachers are given increases of \$75 until the maximum of \$1,500 is reached.

Columbus, O. Supt. J. H. Francis has prepared a schedule of salaries which will add about \$106,000 to the annual payroll. The schedule provides for the following:

\$600 to \$1,200 for elementary teachers; \$1,200 to \$1,700 for elementary principals; \$900 to \$1,800 for high school teachers; \$1,000 to \$1,900 for high school department heads; \$2,500 for East, North and High School of Commerce principals; \$2,350 for West and South High school principals; \$1,000 to \$1,600 for Trade school teachers; \$2,400 for Trade school principals; \$900 to \$1,600 for intermediate teachers with secondary qualifications; \$2,000 for Crestview and Studer Avenue intermediate principals; \$1,900 for other intermediate school principals; \$800 to \$1,800 for manual training and home economics teachers; \$900 to \$1,600 for Normal school teachers; \$2,250 for Normal school principal; \$900 to \$1,600 for assistants to principals; \$1,500 to \$2,100 for department directors and supervisors, and \$1,000 to \$1,800 for assistants to directors and supervisors.

Heads of the executive departments of the board of education and board of employees are

## WHY do Boards of Education continue to buy **MEDART LOCKERS?**

**Because**—they appreciate that Medart Lockers are built with a knowledge of the uses to which they are put in the school buildings of today.

**Consequently**—it is conceded that Medart Lockers are the lockers to use when a modern, efficient equipment is wanted.

'Would you care to have a list of our large high school installations?

## FRED MEDART MFG. CO.

DeKalb and Potomac Sts. ST. LOUIS, MO.

Gymnasium Apparatus    Playground Apparatus  
Steel Lockers

also given increases and janitors also are remembered, their increases amounting to \$10 a month.

Huntington, W. Va. The board has adopted a salary schedule which is as follows:

No. 3 certificates with no previous teaching experience, \$40.00 per month; No. 2 certificates with no previous teaching experience, \$45.00 per month; No. 1 certificates with no previous teaching experience, \$50.00 per month; No. 1 certificates with two years professional training and no previous teaching experience, \$55.00 per month.

2. The maximum salary to be as follows:

No. 3 certificates \$45.00 per month; No. 2 certificates, \$55.00 per month; No. 1 certificates if in first grade, \$80 per month; if in grades seven and eight, \$85.00 per month.

3. The salaries represent a general increase of \$5.00 per month for teachers whose services have been satisfactory.

Waltham, Mass. The salaries of female teachers and teachers of special subjects have been raised \$100, one half of the increase to be in effect in September and the balance a year later.

Marietta, O. A new salary schedule has been adopted for the grade and high school teachers. Beginning September, 1917, increases for high school teachers will be \$50 per year until the maximum is reached.

Elementary teachers who formerly received \$60 per month will be given increases of \$5 per month. Those who have had ten or more years' experience and who can present credits gained in special work at a college or university, will be given an extra \$5 a month.

Teachers who have received \$55 and \$60 per month will be given increases of \$5 per month. Those who have received less than \$50 and who have taught more than half the year will receive \$52.50. After September, 1917, increases of \$25 a year will be given until the maximum is reached.

The school board of Dubuque, Ia., has adopted a salary schedule for grade teachers. The minimum salary will be \$51 per month for a school year of ten months. After the first year of service, yearly increases of \$4 per month will be given in the following amounts: Second year,

\$55; third year, \$59; fourth year, \$63; fifth year, \$67; sixth year, \$71; seventh year, \$75.

The maximum for teachers of the first six grades will be \$75. Teachers of the seventh and eighth grades will receive \$25 a year additional, with a maximum of \$77.50 per month. The maximum salary of assistant principals will be \$82.50 per month.

It is further provided that any teacher who has served at least five years in the Dubuque schools, and who has spent twelve weeks in special study at an approved normal, college or university, may receive \$5 per month additional.

In spite of a steady increase in normal school attendance in the state of Maine, there are a

number of untrained teachers entering upon their work each year, according to J. W. Taylor, state agent for secondary education. The law provides that an institution may offer a training course for teachers and may receive reimbursement to the extent of \$250 under certain conditions. Since the law became operative, about twelve schools have taken advantage of the privilege.

A few years ago the course was revised and an effort made to strengthen the work. The course consists of prescribed work in elementary psychology, school management, school law and observation in the junior year, and methods of teaching observation and practice teaching in the senior year.

## Tough, durable waste baskets for the school-room



There must be unusual qualities in a waste basket that can stand the rough usage of the average schoolroom for more than five years. Yet five years is the length of life for which Vul-Cot Baskets are guaranteed.

And there are other Vul-Cot features that make it particularly suitable for school use.

Vul-Cot Baskets will not dent, crack or split like wood or wicker; nor will they rust, corrode or peel like metal.

They are light, sanitary and neat appearing.

The sides being solid keep the contents from sifting through to floor.

If not carried by your stationer or supply house, write to us. Catalog will be sent to you by return mail.

AMERICAN VULCANIZED FIBRE CO.  
510-520 Equitable Building  
Wilmington, Delaware

Canadian Distributors  
A. R. MacDOUGALL & CO., Ltd.  
266 King St., W., Toronto, Ont.

### USED BY SCHOOLS AND BOARDS LIKE THESE:

Culver Military Academy  
Culver, Ind., Public Schools  
of Harrisburg, Pa., Public  
Schools of Altoona, Pa.,  
Board of Education, Pitts-  
burg, Pa., Board of Edu-  
cation, Philadelphia, Pa.,  
Board of Education,  
Boston, Mass.

### GUARANTEE

The Vul-Cot waste basket with ordinary usage should last a lifetime. It is absolutely guaranteed as to material and workmanship for a period of five years from date of purchase, when used as a waste basket. If during that time it fails to prove satisfactory, return with this label attached and a new basket will be supplied.

AMERICAN VULCANIZED FIBRE CO.  
WILMINGTON, DELAWARE, U. S. A.



Beaver Board Companies Exhibit, Portland, Ore., N. E. A., July 7-14, 1917.

# AMERICAN SEATING COMPANY

Exclusive Manufacturers of Furnishings  
for Schools, Churches, Theatres  
and all Public Buildings



The **Original and Only Single Pedestal Desk**  
made from Drawn and Pressed Steel  
Electrically welded into a composite unit—  
—Completely Sanitary—  
Developed by us for and adopted exclusively  
by the St. Louis Board of Education—



The only Combination Desk made with  
**Tubular Steel** Supports electrically  
welded into a composite unit—  
A Desk of multifold **Utility and Economy**—  
Noiseless Hinge—50% of all schools equipped  
with this type of desk in 1916—

## For the Class Room

Acme Plate Blackboards  
Maps  
Globes  
Charts  
Adjustable Window  
Shades  
General Supplies



The **Original Desk with separate Seat**  
made with **Tubular and Pressed Steel** Supports  
Electrically welded into a composite unit—



The **Standard Opera Chair** for School Auditoriums—  
Seat and back is of laminated hardwood con-  
struction—  
Form fitting seat—  
Supports are of **Tubular Steel**  
electrically welded into a composite unit—  
Noiseless Hinge—  
Self contained—All parts **united and interlocked**  
in process of manufacture—No assembling  
of small parts, bolting, etc.—  
An Indestructible Chair—

## Floor Coverings

Cork Carpet  
Linoleum  
Rubber Matting

## Janitor's Supplies

Sweeping Compound  
Brushes  
Mops  
Eraser Cleaners



**Moulthrop Movable Chair Desk—  
Model B—Type X**

The ideal Desk for the class room—Can  
be moved easily and quickly—Affords  
every convenience found in any type of desk.  
Made in six sizes—Material Selected Oak  
Steel parts electrically welded.

# AMERICAN SEATING COMPANY

General Offices  
1030 Lytton Bldg., 14 E. Jackson Blvd.  
CHICAGO

NEW YORK  
119 West 40th Street

BOSTON  
70 Franklin Street

SALES OFFICES IN ALL PRINCIPAL CITIES



A **Tablet Arm Assembly Chair** with a patented  
**Unbreakable Mechanism** for folding the  
writing Arm—  
Supports are of Semi-Steel Bridge Construction.

# Heywood-Wakefield

TRADE MARK

## ECLIPSE ADJUSTABLE PRESSED STEEL CHAIR DESK

Unbreakable, Heavy Gauge Steel Standards, Finished in dull Black Enamel, baked on at high temperature.

Note the Solid Steel, Wedge Shaped Chair Support, which cannot loosen, work down or break.



### HEYWOOD BROTHERS and WAKEFIELD COMPANY

Pioneer Manufacturers of Pressed Steel School Furniture

Adjustable Single Pedestal Desks with Nine Novel and Exclusive Features.

Indestructible Pressed Steel Combination Desks, Stationary and Adjustable Desk and Chair Sets, Commercial Desks, Teachers' Desks and Chairs, Tablet Arm Chairs, Assembly Hall and Opera Chairs, Library Chairs, Cocoa Matting, Reed and Rattan Furniture for the Rest Room

516-520 W. 34th St.,  
New York, N. Y.

113-123 West Conway St.,  
Baltimore, Md.

737-743 Howard St.,  
San Francisco, Cal.

174 Portland St.,  
Boston, Mass.

Wells and Carroll Sts.,  
Buffalo, N. Y.

148-154 Tenth St.,  
Portland, Ore.

244-254 S. 5th St.,  
Philadelphia, Pa.

2653 Arthington St.,  
Chicago, Ill.

211-217 East 6th St.,  
Los Angeles, Cal.

## For Drafting, Drawing, Technical School Uses



If you could have a New York Study Chair, would you from choice occupy an old type desk?

We like to answer questions like this.

### Educational Equipment Company, Inc.

Makers of the NEW YORK STUDY CHAIR, for Kindergarten, Grade, High and Technical Schools

70 Fifth Avenue

New York City



Adjustable Desk and Chair



Movable Desk

## STEEL SENSIBLE SANITARY Schoolroom and Auditorium SEATING

Early purchases of materials, now worked up into LARGE STOCKS, enable us to make PROMPT SHIPMENT of orders. Nevertheless, on account of slow movement of freight, EARLY BUYING is respectfully suggested. We offer a SPECIAL LOT of 500 Movable Desks at reduced prices.



Stationary Desk



Auditorium Chair

### STEEL FURNITURE CO.

1480 Buchanan Avenue, S. W.

Grand Rapids, Mich.



### Sanitary Steel Furniture Modern Equipment

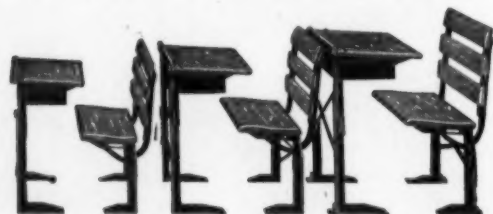


Sanitary Equipment for Domestic Science



LET US BID ON YOUR REQUIREMENTS,  
DELIVERED TO YOUR SCHOOL

Note the Two-Piece Steel Adjustable Desk below



COLUMBIA SCHOOL SUPPLY CO. Indianapolis, Ind.

An  
teach  
York  
term  
by S  
subsc  
ture  
and t  
The  
out \$  
induc  
The c  
made  
Our  
do co  
teach  
state  
the c  
thous  
Red  
De  
men  
have  
high  
will  
called  
partic  
electr  
The  
Coun  
dress  
them  
force  
tion  
cludi  
urges  
fecte  
indiv  
from  
servic  
intact  
year.  
Sup  
taken  
partic  
trade  
war.

## KAHN PRESSED STEEL USED IN THIS SCHOOL BUILDING



HIGH SCHOOL, CONNELLSVILLE, PA. W. G. ECKLES, ARCHT., NEW CASTLE, PA.

ONE of the advantages of KAHN PRESSED STEEL for schools is the fact that it is quickly set in place, requiring no special equipment, etc. Furthermore, a school building where KAHN PRESSED PRODUCTS are used is absolutely fireproof. You as a schoolman realize that you have certain responsibility for the lives of the children. It is therefore your duty to protect them from fire and other hazards. If you specify KAHN STEEL PRODUCTS for your school you can rest assured that your building will be absolutely fireproof, vermin proof and sound proof. Many schools thruout the United States are equipping thruout with KAHN STEEL PRODUCTS.

Our List of Products Includes:

STEEL LATHS	STEEL JOISTS
STEEL DOORS	STEEL FLOORS
STEEL WINDOWS	STEEL WALLS
STEEL ROOFING	STEEL TILES, ETC.

Write today for catalog on KAHN PRESSED STEEL CONSTRUCTION.

**TRUSSED CONCRETE STEEL CO. (Pressed Steel Dept.) Youngstown, Ohio**  
 REPRESENTATIVES IN PRINCIPAL CITIES.

### THE WAR AND THE SCHOOLS.

An interesting report of the work done by teachers and pupils of the public schools of New York City during the latter part of the last school term is contained in a statement recently issued by Supt. Wm. H. Maxwell. The work includes subscriptions to the Liberty Loan, the manufacture of supplies for the Red Cross, census work and the planting of vegetables in vacant lots.

The report shows that teachers themselves took out \$1,250,000 worth of Liberty bonds and they induced pupils to take out nearly \$500,000 worth. The children under the direction of the teachers, made 75,000 articles for the Red Cross.

Out of 21,549 teachers, 20,893 volunteered to do census work for the state. There were 33 teachers enlisted in the regular army, 38 in the state militia and 186 in the home defense near the end of the school year. More than seven thousand teachers were engaged in work for the Red Cross.

Detroit, Mich. Studies intended to fit young men and women for the needs developed by war have been extended in the evening courses of the high schools. Physical training and swimming will be offered for the benefit of men who may be called to the army. The mechanical courses, particularly those in machinework and electricity, have been enlarged.

The educational section of the Indiana State Council of Defense, thru its secretary, has addressed the county superintendents, directing them to complete organizations of the school forces for war service. The letter calls attention to previous directions with reference to including teachers in the local committees and urges that organizations of children be perfected before school opens. It is urged that every individual connected with the public schools, from the kindergarten to the college, render some service. The educational forces must be kept intact so that the schools will not suffer next year.

Supt. Wm. H. Maxwell of New York City has taken steps to organize students and teachers, particularly those of the manual training and trade schools, to aid in the work of preparing for war. Committees have been appointed to study

the various lines of war work, such as shipbuilding, munition making, food preparing and relief work, so that the schools may organize short courses to equip skilled workmen for emergency positions.

### RULES GOVERNING ABSENCE FOR MILITARY SERVICE.

The Chicago board of education has adopted regulations governing leaves of absence and rates of compensation for municipal employees who enter the military service of the United States during the present war. The rules provide:

1. That leaves of absence shall be granted to all employees who enter the military service of the United States for the period expiring August 31, 1917.

2. That compensation be paid to such employees receiving one hundred dollars per month or less, in addition to the monthly wage paid by the United States Government on the following basis, up to and including August 31, 1917:

(a) In cases where the employee has a wife only dependent upon him, that a monthly wage of \$30 be paid.

(b) In cases where the employee has a wife and also a child or children sixteen years of age or less dependent upon him, that he be paid \$40 per month on account of his wife and in addition thereto \$10 a month on account of each child sixteen years of age and under.

(c) In cases where the employee has no wife, but a child or children sixteen years of age or under, dependent upon him, he shall be paid the same amount on account of the person, who in his absence is the head of his household, as an employee is entitled to receive on account of a wife, under the provisions of Paragraph 2; and for each child (other than the child who may be the head of his household and over sixteen years of age), the same amount as an employee is entitled to receive on account of a child under the provisions of Paragraph 2.

(d) In cases where employee has a parent dependent upon him, he shall be paid at the rate of \$40 per month; and if he has brothers or sisters sixteen years of age or under, dependent upon

him, he shall be paid at the rate of \$10 for each such brother or sister.

A special committee is provided to determine the dependents and to make recommendations for payment in accordance with the above rules.

### HYGIENE AND SANITATION.

Selma, Ala. The board has employed a nurse for the school year 1917-18.

Baltimore, Md. The school board has requested the committee on hygiene to consider the advisability of establishing mental and physical clinics in the schools. The clinics are intended to discover children who are mentally deficient and to place them in separate classes where they may receive special attention. The conduct of these special classes will benefit the retarded children and make it possible for normal children to advance more rapidly.

Milwaukee, Wis. The open air school at Lapham Park has been continued thru the summer. Food for the children is purchased from a special fund raised by the sale of Red Cross Christmas seals. Two large gardens have been planted to carrots, potatoes and onions which will be used by the school during the winter.

Medical inspection of children in the unorganized districts of St. Louis County, Minn., has shown that regular inspections for prompt discovery of defects are needed. Out of 2,047 children examined by the visiting nurse, 1,682 were defective in one or more ways. About two-thirds of the children had poor teeth, while more than four hundred had enlarged tonsils. Reports to parents on the conditions noted brought medical treatment in two hundred cases.

The Blind Babies' Aid Association of Chicago recently held a tag day to obtain funds with which to furnish glasses for 32 per cent of the school children whose sight is defective.

The City College of New York City will conduct a clinic for speech defects during the summer months. The clinic which is under the direction of Dr. Frederick Martin, gives a thorough practical training to teachers who desire to become specialists in the correction of speech defects. All members are obliged to undertake the correction of cases assigned to them by trained supervisors.

## THE "STANDARD STEEL" SCHOOL DESK



Patented

### SUPREME IN STRENGTH

One-piece steel standards doubled and pressed forming four right angle walls, a construction undeniably the most rigid of all shapes

### SUPREME SANITARY

Plain in design with no dust crevices.\* Book-shelf, unusually ample, pierced at ends to free dust. All woodwork finished with shellac only, not a high lustre.

Solid cherry woodwork, the best of all woods. Metal parts entirely of steel, japanned an olive green shade—soft to the eye. Metal pen groove saves ink from the wood and makes the top more easy to refinish. Noiseless close-folding seat.

This desk has made many friends during the three years it has been gradually put on the market.

A sturdy desk of light weight with special packing is accessible to customers at long distance at a low cost of freight in excellent order direct from the oldest school desk factory in this country.

**NEW JERSEY SCHOOL-CHURCH FURNITURE CO.**

Trenton, New Jersey

\* Counting the numerous diseases carried by dust should not all desks be plain and smooth?

## The Empire Movable and Adjustable Chair Desk



*Flexible  
Durable  
Sanitary*

## THE TUBULAR STEEL DESK

Write us for catalog and prices.

**Empire Seating Company, Inc.**

225-235 Granite Bldg., Rochester, N. Y.

### THE PORTLAND CONVENTION.

(Concluded from Page 27)

be to form a federation of all state teachers' associations and to make them an organic part of the N. E. A., promises to perform a great piece of work for the unification of the teaching profession. If its projected plans are carried into effect, the teachers will have an organization which for influence and power is not equalled in any other profession or trade.

According to Chairman A. H. Chamberlain, the committee will for the present (a) work out a plan for the organic connection of the association with the several state and local associations, (b) devise a scheme of representation for local associations in the business meeting thru delegates, and (c) limit the active membership in the association to teachers and in the respective departments to persons engaged in the work represented.

Chairman Pearse of the Board of Trustees reported that the permanent fund of the association had grown by the addition of \$11,500 during the year. Treasurer Finegan's report was similarly favorable in showing a balance of \$4,189 on hand, in addition to \$2,000 held by the secretary.

The only unpleasant incident of the meeting was involved in a resolution introduced by Mrs. Ella Flagg Young in support of woman suffrage. The resolution brought a sharp reproof from L. H. Minkel of Iowa and from E. O. Sisson of Idaho, and was finally ruled out of order and expunged from the records.

#### The Attendance.

The attendance at Portland exceeded that of five years ago in Salt Lake City. Oregon and Washington provided three thousand advance memberships; California was represented by a delegation of three hundred and Montana, Idaho, Utah and Colorado sent relatively large numbers. The states east of the Mississippi

were not well represented and hardly one hundred came from New England. In many respects, the limited attendance contributed to the pleasure of the week. It was easily possible for everybody to meet everybody; there was much visiting back and forth in the hotel lobbies. It should be said that the meetings were exceedingly well attended and while some of the sections lacked officers, the audiences were invariably large, attentive and businesslike.

#### CONVENTION NOTES.

An N. E. A. meeting that is practically without bookmen is a novelty. Not a single president of a book house was in Portland. Frank Fitzpatrick and Major A. W. Clancy were the only old-timers on hand.

The Columbia River Highway exceeds the proudest boast of Oregonians in grandeur and variety of natural beauty. No N. E. A. visitor could be blamed for running away from the sessions for a trip up the highway. Such world-famous drives like the Axen Strasse in the Alps compare with the "Highway" in the latter's favor.

The Department of Commercial Exhibits as conducted during the past three years has become a distinct educational feature of N. E. A. conventions. The Portland exhibit, while small, was varied, complete and highly interesting.

A convention of the N. E. A. was never reported more adequately than the Portland meeting. Credit is due to the local papers and especially to Prof. J. E. Searson of the Kansas Agricultural College. Mr. Searson has organized a news gathering and distributing system that is unequalled. He devoted himself to the work as only a truly unselfish journalist can; he was the first man in the headquarters each morning and the last man out late at night.

A prize should be granted to the man who can make audiences of teachers remain in their seats quietly during an entire meeting.

The annual luncheons of the Department of School Administration have grown to be the high point of the entertainment afforded at the summer meeting. Mr. O. M. Plummer is nothing if

not strenuous and his infectious humor takes hold before the guests are well seated. Every chair that could be squeezed into the Banquet Hall of the Hotel Multnomah was occupied. The brief addresses from twenty odd celebrities were more eloquent than the formal addresses made by these selfsame persons at the regular meetings.

Portland's recent school buildings are as fine, as complete and as scientifically planned as any in the United States—that was the judgment of a group of architects and specialists in school-house design who visited the buildings as guests of Mr. F. A. Naramore, architect of the Portland School board.

Secretary D. W. Springer acts as executive officer of the association in such a tactful manner that the convention apparently manages itself. He foresees so many eventualities that nothing which happened at Portland was not attended to promptly and satisfactorily.

#### Supt. Baish Resigns.

H. H. Baish, for the past nine years superintendent of schools at Altoona, Pa., has resigned.

Supt. Baish taught eleven years in Altoona, previous to his election as superintendent in 1908, and had still one year of his four-year term to serve. He was regarded as one of the prominent educators of the state and has been honored a number of times by the national conference. During his incumbency, he had been engaged in plans for a new Junior High School.

Pittsburgh, Pa. The board has adopted a resolution providing that each person who is elected or appointed to a position included in any of the recommendations of the superintendent of schools may receive the salary fixed for said position as is provided by the rules of the board under the present schedule, or any amendment or alteration thereof.

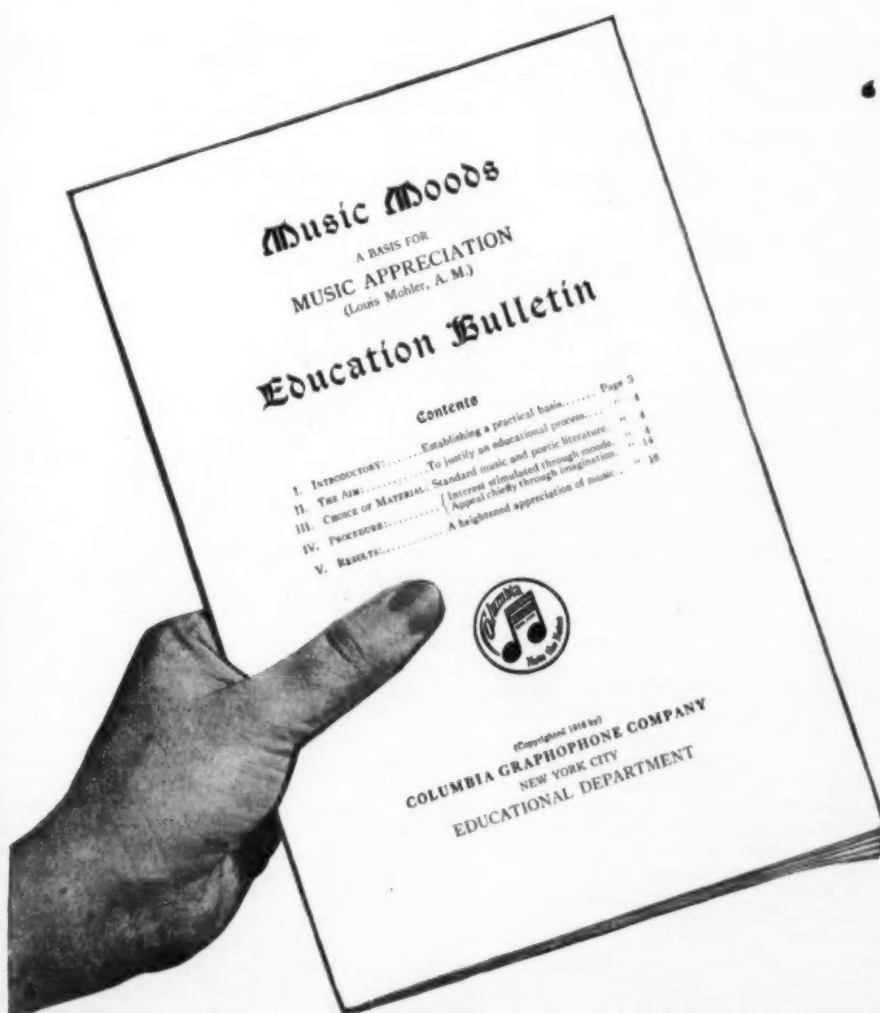
Providence, R. I. The board has ruled that teachers who desire to serve with the American Red Cross may obtain leave of absence and may be assured their positions when they return.

# Music Appreciation

*"Music is enjoyed more by having the interest of its hearers directed."*

CHILDREN are delighted to find the music on Columbia Appreciation Records and the word-pictures on Columbia Teaching Cards, suggesting fairy revels, the thrill of mystery, the play of toys, the blending of colors, the awakening of day, the hush of night—the beautiful in life. Boys and girls are so happy to find in music a form of symbolism that relates and co-ordinates with their own fund of stories, poetry, play and experience.

"MUSIC MOODS" is an educational bulletin, giving ways of directing the interest of music listeners. It explains how interest is stimulated through Mood. It teaches how to obtain a heightened appreciation of music by focusing the attention through appealing to the imagination.



## "Music Moods"

is in reality a Teacher's Manual. It has **created more interest in music** than any treatise of recent years.

Copy of "MUSIC MOODS," together with a sample Columbia Music Appreciation Teaching Card will be sent to you free if you will fill out and mail the attached coupon.

**CLIP THIS COUPON AND MAIL TODAY**  
Columbia Graphophone Co., Ed. Dept., Woodworth Bldg., New York  
Please send me copy of Educational Bulletin "Music Moods,"  
with sample Columbia Teaching Card.

Name.....  
Town.....  
State.....  
A. J.—A.

HIGHEST AWARD ALWAYS

## GOLD MEDAL CRAYONS



BEST IN QUALITY  
AND PRICE

DRAWING  
CRAYONS

Wax  
Pastel  
Pressed

CHALK  
CRAYONS

White  
and Colored  
for  
Blackboard  
and  
Bulletin Work



Send for Samples  
Catalog and Color Chart

MADE ONLY BY THE

### BINNEY & SMITH CO.

NEW YORK

IF you are going to teach your pupils color work this fall, be sure and start with the right colors.



Devoe School Water Color Box No. 118

Devoe School Water Colors are made right for school work; smooth in texture, uniform in color and absolutely reliable.



Devoe School Water Color Box No. 122

Largest makers and distributors of School Art and Drawing material in America.

If interested, write Dept. 5 for catalog and other information.

## Devoe.

14-16 W. Lake St.  
Chicago

Fulton and William Sts.  
New York

1312-14 Grand Ave.  
Kansas City

### COMMITTEES APPOINTED.

Dr. Thomas E. Finegan, President of the Department of Superintendence, of the N. E. A., has appointed three committees to improve the status of superintendents. The committees were authorized at the Kansas City convention as the result of a report on the status, and the relations of superintendents.

The first committee is to undertake a national campaign of publicity for informing the public generally, concerning the functions, the professional status of superintendents and the general problems of educational administration. The committee is as follows:

Charles H. Judd, Department of Education, University of Chicago, Chicago, Ill., *Chairman*; Supt. J. H. Phillips, Birmingham, Ala.; Supt. J. H. Francis, Columbus, Ohio; Miss Edith K. O. Clark, State Superintendent of Public Instruction, Cheyenne, Wyo.; Supt. Milton C. Potter, Milwaukee, Wis.; Supt. E. C. Hartwell, St. Paul, Minn.; O. M. Plummer, Director, Board of Education, Portland, Ore.; Supt. Charles E. Hughes, Sacramento, Cal.; E. A. Winship, Editor, Journal of Education, Boston, Mass.; Supt. Ira I. Cammack, Kansas City, Mo.

The second committee is to undertake the formulation of model legislation, and is to draw up model rules and regulations for boards of education. The committee is as follows:

Charles E. Chadsey, Superintendent of Schools, Detroit, Mich., *Chairman*; Calvin N. Kendall, State Commissioner of Education, Trenton, N. J.; Supt. H. S. Weet, Rochester, N. Y.; Ernest C. Moore, President, State Normal School, Los Angeles, Cal.; Supt. John D. Shoop, Chicago, Ill.; E. U. Graff, Omaha, Neb.; Supt. F. E. Spaulding, Cleveland, O.; Mrs. Mary C. C. Bradford, State Superintendent of Public Instruction, Denver, Colo.; Supt. Wm. M. Davidson, Pittsburgh, Pa.; Charles P. Easton, President, Board of Education, Yonkers, N. Y.

The third committee is to undertake a campaign of co-operation with school boards in improving educational administration, and raising the standard of professional regulation of Superintendents. The committee is as follows:

Fred M. Hunter, Superintendent of Schools,

Oakland, Cal., *Chairman*; Supt. Franklin B. Dyer, Boston, Mass.; Nathan C. Schaeffer, State Superintendent of Public Instruction, Harrisburg, Pa.; Supt. J. A. C. Chandler, Richmond, Va.; Supt. Z. C. Thornburg, Des Moines, Iowa; Wm. C. Bruce, Editor, American School Board Journal, Milwaukee, Wis.; Supt. H. A. Johnson, Ogden, Utah; Mrs. Josephine Corliss Preston, State Superintendent of Public Instruction, Olympia, Wash.; Supt. Ernest L. Thurston, Washington, D. C.; Supt. William McK. Vance, Delaware, Ohio.

### THE BROOKLINE SCHOOL SURVEY.

A demonstration school is one of the specific recommendations for improvement in the Brookline (Mass.) school system, made in the report submitted to the school committee by Dr. J. H. Van Sickle, head of the committee appointed to make the survey. The committee points out that the criticisms and corresponding recommendations are due primarily to questionable economy in the amount of supervision and to the continuation of old conditions and forms of organization that are traditional.

Commendation is given the citizens for supporting a school system which has been a pioneer in nearly all phases of education which are being agitated today. Scarcely a feature of schoolwork which has justified itself and become permanent in any progressive community the country over is lacking.

Discussing the matter of supervision, the committee declares that the amount of supervision provided is exceptionally small, so small as to be out of harmony with the standard set by the town in its expenditures. The superintendent is in need of an assistant and a clerk. Additional supervision is needed in the special branches.

As to school finances it is shown that the larger expenditures are particularly needed in buildings and equipment. Increased appropriations for administrative and supervisory forces are recommended. The adoption of a well defined building program and the organization of new types of schools, courses and activities, the committee believes, are well within the financial ability of the town without laying an undue burden on the taxpayers. Of a group of seven-

teen selected cities, Brookline ranks third in the amount of school expenditures per pupil, but it appropriates the lowest percentage of municipal revenues to the support of the schools. In order to reach the median of the selected group, Brookline will have to increase its school expenditures 83 per cent.

A comprehensive building plan is recommended. In addition to the maintenance and repairs to existing buildings, the committee asks that a junior high school, a new elementary school and a senior high school be built in successive sections and that a third floor be added to the manual training school. These accommodations should be provided within the next ten years and the committee is of the opinion that "there is no single investment which the town could make more likely to result in improved social conditions than the placing of a socialized modern high school in the heart of the town."

The survey committee speaks favorably of Brookline's adherence to the best traditions of school management with regard to the respective functions of school committee and the superintendent as chief executive officer, of the very unusual freedom accorded the teachers, of their excellence and devotion to their work, of the superior judgment amounting to talent, exercised by the superintendent in his selection of teachers, of the satisfactory and sometimes unusual proficiency shown by the children in certain studies, notably in spelling, composition and melodious singing.

The survey was made under the direction of James H. Van Sickle, superintendent of schools, Springfield, Mass. Assisting him were the following: Henry S. West, University of Cincinnati; Harlan Updegraff, University of Pennsylvania; George D. Strayer, Teachers College, Columbia University; Egbert E. MacNary, director of vocational education and practical arts, Springfield, Mass.; May Ayres, specialist in sanitation, New York City; Bertha M. McConkey, assistant superintendent of schools, Springfield; Dr. James H. McCurdy, director of physical training, Y. M. C. A. College, Springfield; Wilbur F. Gordy, Hartford, Conn.; Edwin A. Shaw, Tufts College, Medford, Mass.

## "Paper and Tablets Have Doubled in Price." "Pencils Have Advanced."

You can help cut down the high cost of writing materials for the children by arranging for more individual work at the black-board. Crayons are inexpensive.

Use the best, buy the celebrated Waltham brand or the Hygieia Dustless.

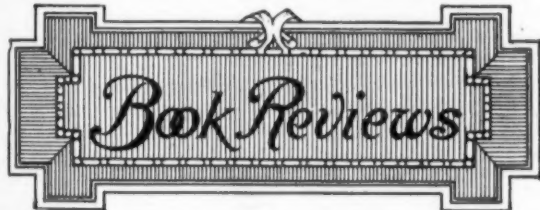


## THE AMERICAN CRAYON COMPANY

Sandusky, Ohio

Established 1835

Waltham, Mass.



### Vocational Mathematics for Girls.

By William H. Dooley. Cloth, 369 pages; illustrated. D. C. Heath & Company, Boston, New York, Chicago.

The author offers his textbook as an introduction to a regular course of mathematics in a high school. A cursory turning of its leaves discloses the varied and practical character of the work.

Even Herbert C. Hoover would approve of the tables, the hints for economy, the directions for marketing, the need of knowing the price per pound, per cupful, even per teaspoonful of different articles in order to calculate the cost of a dish. Prices are given for the essential furnishings of every room in a small house. From some of these lists pupils are asked to state what income would justify these furnishings. Instructions for managing heat, light, reading meters, keeping a bank account are timely. Special and suitable work is given milliners, dressmakers, housewives in economical purchase of material.

Its contents justify the assertion that "the book contains samples of problems from all occupations that women are likely to enter, from the textile mill to the house."

### The Story of Old Europe and Young America.

By William H. Mace and Edwin P. Tanner. Cloth, 334 pages. Price, 65 cents. Rand, McNally & Company, Chicago and New York.

While this book covers its subject splendidly it does not appeal to us as so well balanced as Miss Hall's recent book, "Our Ancestors in Europe." The authors have given clear cut word pictures of the life and institutions of the European peoples during the great periods of history, and no child who reads the stories can fail to become interested or to obtain an ade-

quate back ground for the study of American history. A few of the illustrations appear objectionable for children and had better be omitted from future editions.

### Practical Exercises in Rapid Calculation.

By Earle Powers and Harold W. Loker. Paper, 128 pages. Price, 40 cents. Ginn and Company, Boston.

This splendidly graded series of exercises in rapid calculation will be welcomed by every teacher in the commercial department of high schools. It offers 128 assignments covering every arithmetical operation and illustrating a wide variety of ordinary business transactions. The reproduction of problems on business forms adds considerably to the motivation which is so essential in this form of review. The pad will be equally valuable in general arithmetic review classes and in evening schools.

### The Question as a Factor in Teaching.

By John William Hall and Alice Cynthia King Hall. 189 pages. Price, \$1.25 net. Houghton Mifflin Company, Boston, New York, Chicago.

The skilful question is one of the strongest means which the teacher has in her possession to arouse attention, and sustain interest, to direct the minds of children and fix their knowledge of the main points in any lesson. The present book is a new treatment of general method from the viewpoint of the question. As Dr. McMurtry says in the introduction it deals with the question in practice rather than theory and "furnishes a concrete basis for studying the general rank of instruction, its peculiar purposes and possibilities, and its desirable characteristics. It suggests that lesson plans for teachers might consist of a few well-convincing questions and that questions, rather than the answers to questions, might well be the first consideration of both teachers and pupils."

### Everyday Classics.

By Franklin T. Baker and Ashley H. Thorndike. Price, 60 cents. The Macmillan Company, New York.

The selections in this splendid little book are chiefly stories of adventure and wonder, with a judicious amount of purely descriptive extracts

and some biographical and literary notes. The book appeals to the fifth and sixth grade age. While the purely literary viewpoint has been emphasized there is much of dramatic value. The illustrations are charming in style, correct in historic detail and full of spirit. The book raises in the mind of the reviewer a comment that cannot be applied to many recent series of readers or even to other books of the present series: It does not contain a single story, poem or quotation that can give offence from a racial, political or religious standpoint.

### Healthy Living.

By Charles-Edward Amory Winslow. Cloth, 385 pages; illustrated. Charles E. Merrill Company, New York, Chicago.

Health is not only an individual but a community asset. Visiting nurses in our public schools, baby week in our larger and smaller towns, social settlement work in the congested districts of our cities are all efforts to better existing conditions and teach healthy living. This book by a professor of public health, Yale Medical School, is an instance of the trend of public opinion.

Physiological science, from protoplasm and cell making to accidents and first aid is here handled from a practical point of view. The rules of health in regard to food, air, exercise, rest, clothing, prevention from infection, etc., are emphasized so persistently that pupils must remember them. The enthusiasm of the author can hardly fail to arouse a similar feeling in pupils. Thus health for themselves and their community will become a matter of prime importance.

Credit due is given one woman for the preparation of pointed questions following each chapter and to another woman for an unusually full index.

### Productive Agriculture.

By John H. Gehrs. Cloth, 436 pages; illustrated. Price, \$1.00. The Macmillan Company, New York.

This text sticks closely to its title. Care of soil, selection and testing of corn and grains, paying care of good breeds of stock, swine, poul-

## Pitman's Commercial Modern Language Series

**Hugo's Russian Simplified.** An easy and a Rapid Way of Learning Russian. Cloth, \$1.35.  
**Hugo's Dutch or Flemish Simplified.** Cloth, \$1.35.  
**Pitman's Commercial Spanish Grammar.** 249 pp., cloth, \$1.10. By C. A. Toledano.  
**Hugo's Simplified Spanish.** An Easy and Rapid Way of Learning Spanish. Cloth, \$1.35.  
**Dictionary of Commercial Correspondence in French, German, Spanish, Portuguese, Russian, and Italian.** 500 pp., cloth, \$2.50. Containing the most common and ordinary terms and phrases.  
**Pitman's Commercial Correspondence in Spanish.** 267 pp., \$1.10.  
**Spanish Commercial Reader.** 170 pp., cloth, \$1.10.  
**Manual of Spanish Commercial Correspondence.** 328 pp., cloth, gilt, \$1.50. By G. R. MacDonald. Contains an extensive selection of commercial letters.  
**English-Spanish and Spanish-English Commercial Dictionary.** 660 pp., \$1.50. By G. R. MacDonald. A complete work of reference for students and teachers. "A valuable work of reference and thoroughly up-to-date."—*The South American, New York.*  
**Taquigrafia Espanola de Isaac Pitman.** Being an Adaptation of Isaac Pitman's Shorthand to Spanish. \$1.30.  
 Any book in this list will be sent postpaid on receipt of price.  
*Liberal Discount to Teachers and Schools.*

**Isaac Pitman & Sons**

2 West 45th Street

New York

## VALLEY FORGE

By Henry Armitt Brown

[Edited, annotated and illustrated for schools]

You want supplementary reading. Would you give your children the high-lights of their country's history? A picture they can never forget? The noblest English? The best of oratory? The strongest appeal to patriotism?

### TRY BROWN'S VALLEY FORGE

It is the greatest historical oration ever made in America

**CHRISTOPHER SOWER COMPANY**  
PUBLISHERS

124 NORTH EIGHTEENTH ST.

PHILADELPHIA

try, well-balanced rations yielding quickest and largest returns, shape and size of farm fields are discussed with reference to productiveness compared with outlay. The many tables, graphs, score cards, maps are packed with information. Pointed laboratory exercises render all this information highly practical.

This book has been planned for the seventh and eighth grades in rural schools, as the author believes the practical knowledge of these boys and girls will fit them to use this book to advantage.

#### The Building of Cities.

By Harlean James. Illustrated by Charles K. Stevens. Cloth, 201 pages. Price, 40 cents. The Macmillan Company, New York.

A boy and a girl, Every boy and Every girl, live in Any city. They take walks with the Past, the Present, and the Future. In these walks their talk always turns upon the location and arrangement of cities.

Diagonal streets to shorten distances, buying land when cheap for small parks in the heart of a city and spacious school yards, wide streets in crowded thoroughfares, narrow streets in residence districts, sunken railroad tracks, are often seriously talked about. Indeed, hardly any topic connected with the well-being of a city is left out. The Past tells of what has been done and what has not been done, the Present speaks of what cities are now doing and the Future of what they should do.

These talks touch upon problems that must be faced by hundreds of cities in the United States and may help them to profit by what other cities have done and may also keep them from making grave mistakes.

#### Oral and Written English.

Book One. By Milton C. Potter, H. Jeschke and Harry O. Gillet. Cloth, 329 pages. Price, 52 cents. Ginn and Company, Boston, New York, Chicago.

Three men whose positions have given large opportunity for observation, comparison, conclusions, have expressed some of these conclusions in this series of books on oral and written English.

The book is planned on the theory that good talking should precede good writing so interesting work has been arranged to gain this end. But there is other work; studying pictures and choice selections; exercises in the proprieties of letter-writing; exercises that will make correct use of capitals and commas a second nature. If good talking has been well begun these exercises

will make good writing follow as a matter of course.

#### The American Song Book.

By Charles Herbert Levermore. 8vo. Cloth, 219 pages. Price, 72 cents. Ginn and Company, Boston, New York, Chicago.

Students in our secondary schools will take to this new song book. They will find in it 38 familiar and folk songs. The typical songs of countries that have contributed generously to our population have been given the preference. It is almost needless to say the 24 college songs will be prime favorites. In this group are some of the latest and best athletic songs of leading colleges. Many will miss in the songs of devotion some that have long been dear to them, but they will find some of the best spiritual songs of our modern poets. Nearly every country in Europe has contributed a patriotic song to the songs of loyalty to the nation and the cause of humanity, tho the United States has naturally the largest number.

A glance at the list of composers places these songs; the music is within a reasonable voice range for students, there are a sufficient number of part songs.

#### Training for a Life Insurance Agent.

By Warren M. Horner. Cloth, 134 pages; illustrated. Price, \$1.25 net. J. B. Lippincott Company, Philadelphia.

"Training for a Life Insurance Agent" is one of Lippincott's Training series. It has been written by a man who has had almost 25 years' experience, who has achieved success, and who has an unqualified belief in insurance as a man's job for live men and as a bulwark to mankind against sickness, want, the known and unknown needs of old age.

The subject has been thoroughly studied and is thoroughly expanded. "It describes the possibilities and rewards in every branch of life insurance, who should begin—when and how; salesmanship; system and efficiency; woman in life insurance, etc." Much of what is said of steady study, industry, system, tact could be fitly applied to many another business. It is stimulating to read such vigorous thought put into such vigorous terms.

#### Elementary Spanish-American Reader.

By Frederick Bliss Luquens. Cloth, 224 pages; illustrated. Price, 90 cents. The Macmillan Company, New York.

The growing importance of trade with the Spanish-American states makes the study of Spanish almost imperative. The short, graded

## IMPORTANT ANNOUNCEMENT

### Aldine Reading Method 1916 Edition

By Spaulding and Bryce.

PRIMER, BOOK ONE, LEARNING TO READ — A Manual for Teachers, Charts and Cards.

### Aldine Third Language Book Language—Grammar—Composition

By Spaulding, Bryce and Buchler.

For Grades Seven and Eight. Completes the series of three books covering the work in Grades Three to Eight

### The Aldine Speller Published in 1916

By Bryce and Sherman.

Four-Book Edition and Two-Book Edition. Grades One to Eight.

### Buehler's Modern English Grammar and Composition Revised 1916

Employs the Nomenclature recommended by the Joint Committee of the National Education Association.

### Webster's English for Business Published in 1916

An important contribution on the subject by an expert. For Commercial, Technical, and other Secondary Schools.

## NEWSON & COMPANY

73 Fifth Avenue, New York

623 South Wabash Avenue, Chicago

### Equip Your Schools with High Grade Maps—

## The GOODE SERIES of WALL MAPS

By Professor Paul Goode of the University of Chicago

Worked out with careful consideration for the needs of American schools and the geographical demands of the time, these maps are celebrated for their emphasis on essentials, new features, great amount of new and authoritative data covering exploration, commerce, industry, and transportation. They are distinguished also by a special color scheme and general superiority to other school maps.

The delineation of great ports, strategic points, canals, and ocean lines give a military and naval interest.

Issued in Two Series—Physical and Political  
Send for free booklet on the series

Chicago

Rand McNally & Company

New York

selections in this reader all deal with Spanish-American subjects and most of them have been written by Spanish-American authors. Thus they have national coloring and spirit.

Each lesson is provided with a set of questions in Spanish, based on the text and a composition exercise. Students will find the needed words and phrases in the lessons immediately preceding. One special excellence in the notes is a constant review of the essential rules of grammar. Another is the literal translation of difficult passages. The one sound way of studying a difficult passage in any language is to find out the exact meaning and force of every single word.

Maps and full-page attractive illustrations add to the working value of this reader.

### OFFICIAL PUBLICATIONS OF INTEREST.

*Abstract of the Census of Manufacturers, 1914.* Price, 65 cents. Sold thru the office of Superintendent of Documents, Washington, D. C. This inquiry which relates to the year 1914 was made in 1915 and gives in convenient form all the information needed by the great majority of persons who have use for manufacturers' statistics. It covers 340 separate manufacturing industries, statistics relating to number, size, and character of ownership of establishments, and the states in which located, also proprietors, officials, salaried employees and wage-earners and the salaries or wages paid each. Statistics similar in scope but in less detail are given, with reference to all industries combined, for each state and geographic division and for each of the leading 130 cities.

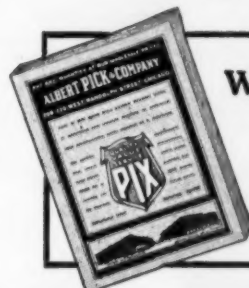
*Bulletin of the State Board of Education, Delaware, 1917.* Meritorious Recognition and Awards to Unincorporated Public Schools. Contains the provisions of House Bill No. 28, providing for the giving of meritorious recognition and awards to all free schools, not having special powers by incorporation or consolidation, that attain a certain standard of excellence and efficiency.

*Research Progress Facts, Dayton Bureau of Research, July, 1917.* A year of governmental research with certain facts about the city, county and schools, and their progress during 1916-17. The bureau was first organized by Mr. J. H. Patterson in 1912, but in 1916 was reorganized on a broader scope. It acts as the representative of the citizens in following the governmental activities of the city, the schools and the country; it promotes effective and economical government by co-operating with public officials in the installation of established methods in public busi-

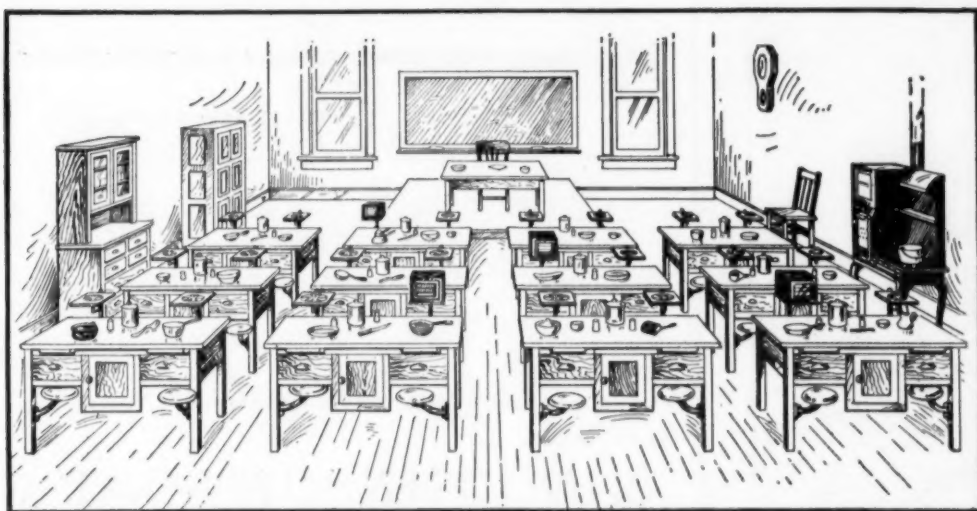
(Continued on Page 65)

# Domestic Science Equipment

We specialize in the complete equipping of Domestic Science class rooms. We furnish **ALL** the equipment necessary; tables,

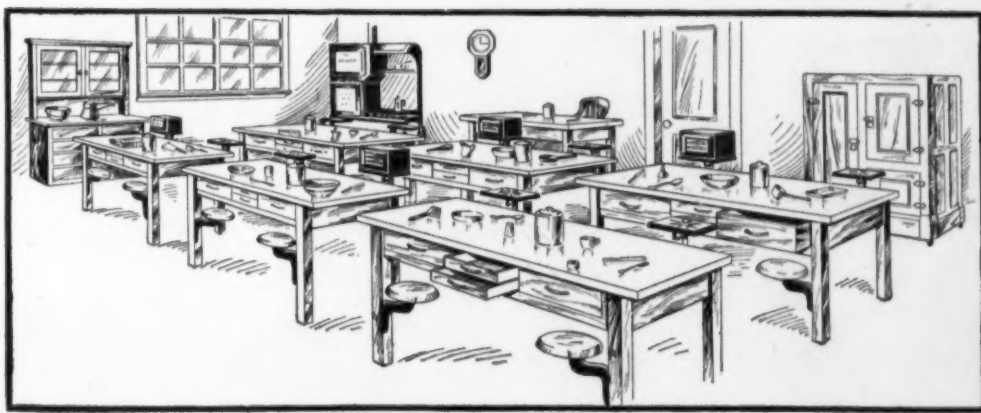


**WE SPECIALIZE ON  
LUNCH ROOM  
EQUIPMENT**  
CATALOG ON REQUEST



ranges, gas plates, utensils, **EVERY-THING.** By placing your order with us you will avoid annoying delays and save money. Then too you will find our goods of a superior grade and of the newest and most approved construction. Send us a sketch and dimensions of the room

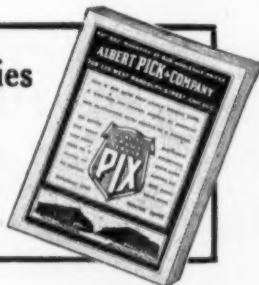
you intend devoting to Domestic Science work and we will quote you on the equipment best suited to your purpose and show you the most efficient method of installing it. We carry in stock many items designed exclusively for Domestic Science work. Before placing your order ask us about any special appliances you may require. If you are now conducting classes in Domestic Science you will want a copy of our catalog at hand ready for instant reference. No matter what your requirements, we can furnish them and save you money. Consult us before ordering.



## Other School Supplies

sold by us are itemized at the right. Our Catalog lists these.

SEND FOR A COPY



We also handle janitors' supplies, paper balers, electric fans, mats and matting, linoleum and cork carpet, window shades, awnings, sweeping compounds, toilet paper, paper towels, paper drinking cups, all kinds of paper, printed matter, stationery specialties, flags and a great many other items.



## ALBERT PICK & COMPANY

208-220 West Randolph Street, Chicago, Illinois



## The Thompson Movable and Adjustable Chair-Desk for Schools



### EXCLUSIVE FEATURES

Affording the widest possible range of adaptability to the ever varying needs of present day schools.

*Correspondence invited. Let us send you illustrations and detailed description. Write*

**THE QUAIN ART FURNITURE CO., Inc.**

Manufacturers

102 So. Clinton St., Syracuse, New York

Boston, Mass.  
KENNEY BROS. & WOLKINS  
224 Congress St.

Philadelphia, Pa.  
N. SNELLENBURG & CO.  
11th and Market Sts.

## "PALM OLIVE"

is the popular soap and the one you hear about most—but we have

### "A Soap for every purpose"

These are a few in our line: FLOATING SOAP, PUMICE SOAP, SOAP POWDER, LIQUID SOAP, SCOURING SOAP, SOFT SOAP, LAUNDRY SOAP.

*Send for samples and price.*

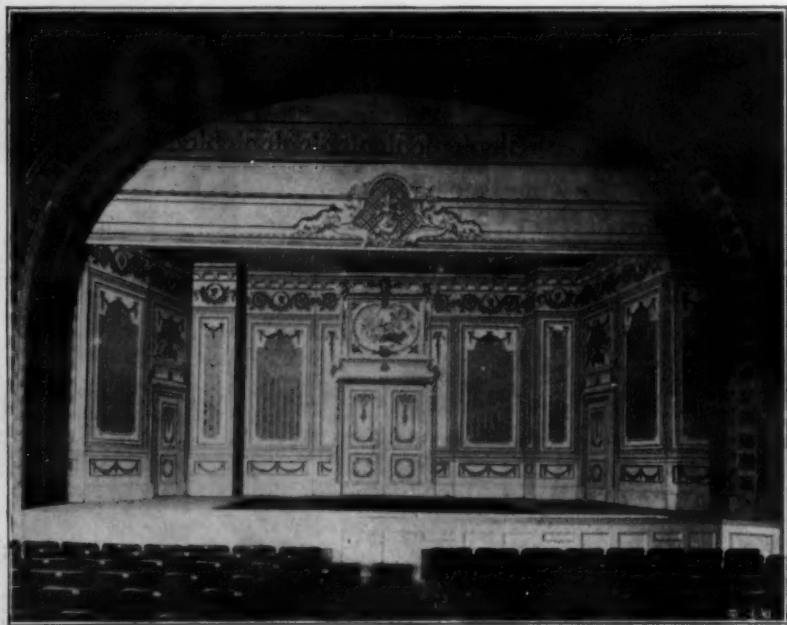
### AUGUST SPECIAL

Liquid Soap, manufactured from cocoanut oil and caustic soda—21% Soap—barrel lots \$0.75 per gallon. Shipments of 5 gallon cans sent at the barrel price.

*Address School Department*

**B. J. JOHNSON SOAP CO.**  
MILWAUKEE, WIS.

## Are You Ready



For your commencement exercises?

How about new scenery or repainting your old? We will submit colored sketches on request.

*Write for New Catalog B*

**SOSMAN & LANDIS CO.**

*Correct Scenery*

Office 417 So. Clinton St.

CHICAGO

## PREMIER ENGRAVING COMPANY



WE Specialize in making  
Halftones, Zinc etchings,  
Electrotypes for Annual Reports, School Magazines, College and High School Annuals.

We are in a position to give expert advice and assistance in purchasing engravings effectively and economically.

*Write us for quotations.*

1105 VLIET STREET PHONE GRAND 1231  
M I L W A U K E E

# JUST A GLIMPSE—

The diagram illustrates the 'VOUCHER REGISTER' system. It shows a hierarchy of services and their corresponding voucher forms. At the top is the 'INSTRUCTIONAL SERVICE (SUPERVISION AND TEACHING)' which includes 'SUPERVISION' (FORM 2) and 'TEACHING' (FORM 3). Below this is the 'GENERAL CONTROL (REGULATIVE AND EXECUTIVE SERVICE)' which includes 'SUPERINTENDENT'S OFFICE' (FORM 4), 'BOARD OF EDUCATION' (FORM 5), and 'BUSINESS ADMINISTRATION' (FORM 6). The 'VOUCHER REGISTER' table below has columns for 'TO WHOM ISSUED', 'WARRANT', 'TOTAL', and 'DISTRIBUTION'. The 'DISTRIBUTION' column is further divided into 'GENERAL CONTROL', 'INSTRUCTIONAL SERVICE', and 'PROPERTY SERVICE'. The 'PROPERTY SERVICE' column is further divided into 'UTILITIES', 'MAINTENANCE', 'REPAIRS', 'DEBT SERVICE', 'CITYAL OUTLAY', and 'ARREARS AND UNPAID VOUCHERS'.

at the Scientific System of Classifying and Recording School Disbursements. Compiled by Hiram C. Case of the Educational Department State of New York and approved by the United States Commissioner of Education and the National Association of School Accounting Officials.

Why not write us today for samples and price? \$13.70 will cover a medium sized district or city. Write or wire today to

**C. F. WILLIAMS & SON, Inc.**  
Fred A. Williams, Treas.

**36 Beaver Street  
ALBANY, N. Y.**

(Continued from Page 62)

ness; it provides continuous and effective publicity to keep the public informed and interested in local government. Among the topics treated are Where Your Tax Dollar Goes; War and Costs; Keeping Tab on the City's Money; City Budgeting; Financing Current Operations; Reasons for Increased Taxes; Are Public Schools Public Property; Why School Costs are Low.

**Employment of Women and Juveniles in Great Britain During the War.** Series No. 11 of Women in Industry, April, 1917. United States Department of Labor, Washington, D. C. This bulletin is the third of a group of bulletins published by the Bureau in compliance with the recommendation of the National Council of Defense. It reproduces in full the official and quasi official documents, with the exception of the report on the replacement of men by women during the war. The group of bulletins is intended to give a wide knowledge of the experiences of Great Britain, France, Canada and other countries, in dealing with labor in the production of munitions. Among the topics treated are replacement of men by women in industry in Great Britain, migration of women's labor thru the employment exchanges in Great Britain, employment and remuneration of women, output of munitions in France, juvenile employment in Great Britain, employment of women and boys in Italy.

**General Report of the Schools of Oakland, Cal., 1913-17.** The report of which this is Part I has been divided for convenience and economy of distribution into five parts. It is issued by A. C. Barker, formerly superintendent of schools, as a means of dealing with future problems that come before the board, and as information for the citizens and public in general. The pamphlet discusses administration, kindergartens, elementary schools, high schools, evening schools, special schools and the financial situation.

**The Intermediate School Situation in Oakland, Cal.** Part II of the general report by the superintendent. The pamphlet contains a brief account of the intermediate school problem in which is recorded what has been accomplished by the introduction of departmental instruction in the upper grades. A building program is pre-

sented in which provision is made for six intermediate school centers. The report discusses the types of schools, facilities provided, courses offered and the housing of the students.

**Proposed Building Program Submitted to the Board of Education and the Advisory Bond Commission of Oakland, Cal.** Part III of the general report of the superintendent. The report discusses attendance, distribution, costs and sources of funds.

**General Statistics of the Oakland Schools.** Part IV of the general report of the superintendent. Compiled by Wilford E. Talbert, Director of Reference and Research of the Oakland Schools.

The pamphlet discusses the assessed valuation, taxation, receipts of state, county and school district funds, expenditures from city and other funds, expenditures for schools, cost per pupil, analysis of expense items, estimated value of sites and buildings and insurance carried, and cost school bonds. There are a number of tables and graphs to illustrate how the money is used.

**The School Custodian.** A series of seventeen lectures by Wilford E. Talbert, Director of Reference and Research of the Oakland Schools. The Oakland board has recognized the broader scope of the modern janitor's usefulness in a school by raising him in rank to that of custodian. It has



CORRIDOR, HIGH SCHOOL, NEW CASTLE, PA.

## "All Interior Trim Shall Be Dahlstrom Metallic Products"



That is how your specifications for school buildings should read. You will be assured of accurate fit. Every piece will be uniform in design and color that would be impossible to obtain with wood. In using

### Dahlstrom Metallic Products

you eliminate the maintenance charges for refinishing and replacing cracked, decayed and warped wood.

Dahlstrom Metallic Products are fire-proof, vermin-proof, decay-proof, sanitary and permanent. They protect property and life against loss by fire.

In specifying Dahlstrom products you secure not only quality, but service as well—our facilities enabling us to promptly execute any size order.

Get the facts and figures from

### The Dahlstrom Metallic Door Company

Executive Offices and Plant

10 Blackstone Ave., Jamestown, N. Y.

Branches and Representatives in All Principal Cities

## Y. M. C. A. Orders 100 Motiographs

To be shipped to different Army and Navy cantonments throughout the United States.



The MOTIOGRAPH projector was selected by the Y.M.C.A. upon its merits as regards

- Quality of Material;
- Simplicity of Operation;
- Perfection of Projection

*Just the qualities  
of an ideal school  
projector*

When you are ready to equip your assembly hall with a projection machine select the MOTIOGRAPH.

*Write for Literature.*

## THE ENTERPRISE OPTICAL MFG. CO.

570 West Randolph Street

CHICAGO, ILL.

sought to give the custodians in its employ the benefit of the advice of experts in the vicinity, and to make available to them in printed form these abstracts of lectures. The results of this effort should be better service and less waste on the part of the custodians, and an increased awakening of the board, the community and others to the importance of this employe. Among the topics discussed are fire prevention and control, heating and ventilation, use and care of steam heating apparatus, temperature regulation, operation and care of electrical equipment, oiling of floors, and hygienic measures for the protection of health and the control of disease.

*Annual School Bulletin of Cerro Gordo County, Ia., for 1917.* Fred D. Cram, County Supt. The pamphlet discusses buildings and repairs, supplies, compulsory school attendance, teachers' salaries, consolidation and annual expenditures.

*School Architecture.* Southern Pine Association, New Orleans, La. In the belief that there is much room for improvement in present methods of housing children in schools, the Southern Pine Association undertook an architectural competition in which an effort was made to show buildings of moderate cost, as well as those suited to the accommodation of large numbers of pupils, in which beauty is combined with simplicity and convenience. The Association issued a general invitation to architects, offering cash prizes of \$500 for the best designs in the "pavilion type" building, built of Southern Pine. In this pamphlet are presented ten plans, expressing the ideas of the architects concerning this type of building. They were selected as the best of 43 designs submitted from all sections of the United States. There are five two-room schools, one one-room, one four-room and three three-room schools.

*Eighteenth Annual Report of the City Superintendent of Schools of New York, 1915-16.* Edward W. Stitt, district superintendent in charge. The pamphlet contains a report on the four special activities of Community and Recreation Centers, Vacation Schools, Vacation Playgrounds, and Baths.

### TEACHERS' SALARIES.

Carlisle, Pa. The board has raised the minimum salary for beginning teachers from \$40 to \$45. Regular increases are granted annually in the grades up to \$50. The high school maximum has been raised from \$80 to \$95.

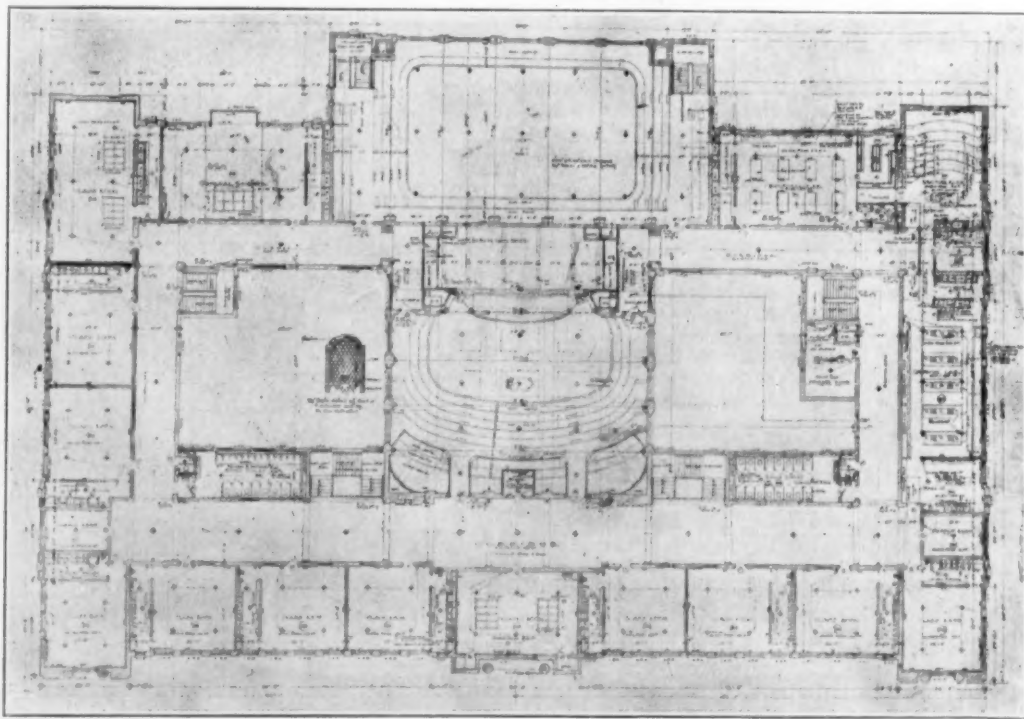
Athens, O. The rural school board has adopted a salary schedule for teachers in the district. A teacher with no experience or professional training will be given \$50 per month; a teacher with experience and less than one year's professional training, \$55.00 per month; teachers with more than one year's professional training and less

than two years, \$50 per month; graduates of two-year course in professional training, \$65; for each six weeks of training beyond two years, \$1 per month up to \$75 per month.

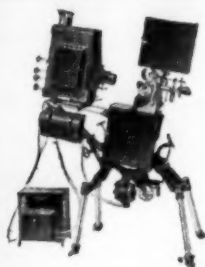
Rockford, Ill. The maximum salary of grade teachers has been raised from \$75 to \$80 per month. The salary limit of elementary principals has been raised to \$1,050.

The Wisconsin legislature has just passed a bill fixing the minimum salary of teachers at \$45 per month.

Duluth, Minn. The board has raised the maximum salary of teachers from \$900 to \$950.



THIRD FLOOR PLAN, HIGH SCHOOL, BUTLER, PA.



"Seventeen Years of Knowing How"

# THE EYE SEES BRAIN RECORDS MIND ACTS

## And Knowledge is the Result

The motion picture is the most effective of all educational mediums. The student *instantly perceives* what would otherwise require hours of laborious mental application to master. Faultless projection of the pictorial subjects is most essential to successful results in this field.

## PERFECT PROJECTION

is attained through the use of

## POWER'S CAMERAGRAPH No. 6B

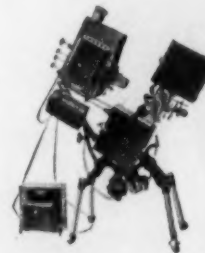
Used by Universities of Minnesota, Harvard, Yale, Columbia, Nebraska, Cornell, Pennsylvania; State Normal Schools, Wisconsin, North Dakota, Michigan, Georgia, Virginia;

Technical High Schools, Springfield, Mass., Halifax, Nova Scotia; Central High School, Minneapolis; Boys' High School, New Orleans, and many others.

*Our Catalog A is of interest. Mailed on request*

# Nicholas Power Company

Ninety Gold Street, New York City



### THE CARE OF SCHOOL BUILDINGS.

(Continued from Page 23)

can only be eliminated by similar care and attention on the part of those in charge. The automatic flushing apparatus can be regulated so that the closets will be flushed frequently at recess periods, but at other parts of the school day less frequent flushing might be sufficient. The apparatus should be shut off when the sessions for the day are over. It has been suggested that an invention whereby the flushing system could be regulated by the program clock would be of great value.

After all is said and done, the principal factor in the economic use of fuel, light and water is the human element—the "man behind the gun"—the janitor of the building.

#### Janitors' Wages.

The standardization of salaries and wages in municipal service is the subject of careful study by experts in many cities. This movement is of comparatively recent growth, but increasing attention is being given to it thruout the country. It takes its place in the consideration of plans for the improvement of public service.

There are two distinct programs leading to this end—civil service reform, and the efficiency movement—and standardization of salaries forms a part of each.

Chicago was the pioneer in the standardization of municipal salaries. The movement looking towards such a plan began in 1908, which finally in 1912 resulted in the official adoption by the city of a standardization scheme for all salaries. Briefly stated, the principal features of the Chicago plan are as follows:

Classify the positions according to the general character of the duties involved.

Divide the positions in each class into grades according to their relative importance.

Establish a salary schedule for each grade which will provide maximum, minimum and intermediate rates applying uniformly to all positions within the grade.

Promote from a lower to a higher grade by competitive examination, but make advancement from a lower rate to a higher rate within a grade depend on efficiency and length of service.

Efficiency is ascertained from reports made regularly by department heads in accordance with fixed rules.

Titles of positions are standardized and made descriptive of actual duties.

New York City has recently adopted the most comprehensive scheme yet attempted in this country. The specifications for classification and grade enter into greater detail and permit a greater flexibility than any plan heretofore devised.

All salary standardization plans as yet developed appear to possess principal features in common; such as classification of service according to duties, standardization of titles, promotion from grade to grade on merit, provision for advancement in salary without change in position or grade. These plans however apply to all municipal salaries, while we are only concerned at this time in wages of school janitors.

Great diversity exists in different cities in the schedules for janitors' wages; as to amounts paid, as to rates and as to bases on which rates and amounts are determined. The varying conditions which exist in different localities, such as temperature and other prevailing states of the weather, local labor problems, economic questions, etc., account in a great measure for this difference. There is as great a difference in

the likes and dislikes and preferences of large groups of people making up different localities as there is in individuals.

We will not here consider specific amounts or rates of pay. That is a matter which each locality should settle for itself. But the basis upon which the rates are fixed are of interest as they can be accepted and adapted to any community.

Broadly stated, the bases upon which the wages of janitors are fixed may be divided into three general heads.

1. Area.
2. Rooms.
3. Buildings.

Each of these divisions is subject to various modifications, exceptions, and additions within itself, but it can be safely laid down as a general principle that all janitors' wages are fixed according to one of these basic plans or by a combination of them.

Let us consider briefly each head.

1. *Area.* The area of each floor is obtained generally, not including basements and lofts, or rooms used only for storage purposes. The rates are based on certain principal factors which in a number of cities are classified as follows:

- a. Cleaning.
- b. Heating and ventilating.
- c. Window cleaning.
- d. Care of yards and sidewalks.
- e. Care of lawns.

a. *Cleaning, sweeping and dusting.* The cost of this work is relatively less for large surfaces than for small, therefore the rate per square foot decreases as the area increases. This change of rate is usually made for each increase of one thousand feet in area.

b. *Heating and ventilating.* The relative cost is less for a large building than for a small

# Buffalo School Board Buys One Hundred **Schick** Paper Balers

We recently sold one hundred No. 2 Schick Fire-Proof Paper Balers—two solid car-loads—to the City of Buffalo, N. Y., for use in the public schools. The School Board selected the Schick in preference to any other baler on the market not because it is cheaper, but because it is *stronger, safer, better.*

## Using a "Schick" means Economy -- Safety -- Profit

A Schick Baler will pay for itself and earn money in any school. It eliminates the risk of fire starting in piles of waste paper. It turns waste into profit. Waste paper is higher in price than ever. No one can afford to destroy a single pound of it. Paper mills are begging for all they can get and paying big prices. It's important to bale waste not only because of the safety feature but because baled waste brings higher prices than unbaled.



The Schick is strong, simple, easy to operate—most compact baler on the market. Boy can operate. Takes up less room than a pile of waste on floor. Really costs nothing because it pays for itself and earns money besides.

Many of our customers say that the Schick Baler pays for itself the first year; some say it will do it in a few months. Depends upon the amount of waste you have. Made in six sizes, the right size for every school.

Write Today for This Free Book  
and Special Offer to Schools

"How to Make Money in Waste Paper" will reveal startling facts to you. Shows enormous loss in waste paper destroyed. Tells how this waste can be turned into cash. Send for your copy now.

SALESMEN AND JOBBERS WANTED  
Good opportunity for high school and college students with selling ability.

DAVENPORT MFG. CO.  
Dept. 5-B, Davenport, Iowa



## COAL WILL BE HIGH THIS FALL—

whether Uncle Sam regulates the price or not. This means, Mr. School Board Member and Mr. Superintendent of Schools, that you must conserve every ounce.

## Economy for Schools

is just as vital as economy for individuals and temperature regulation and humidity control is the surest way of regulating and controlling excessive costs of heating. Think of saving from 20% to 50% of your coal bill this year.

## JOHNSON {Heat Humidity} CONTROL

not only "saves the coal pile" but it gives a maximum of health insurance for teachers and pupils alike. Nothing in a school building is more vital and nothing contributes more to the efficiency of schools.

## JOHNSON SERVICE COMPANY

New York

Chicago

Milwaukee

one. The price should be fixed on a sliding scale based on the cubical contents of a building. It may be based, however, on the total floor area. Different rates are established for different methods or systems used. Heating and ventilating plants should be divided into classes and rated according to the requirements of each class for technical knowledge, ability and skill, and the rate per foot fixed accordingly.

c. *Window cleaning.* This work will cost relatively as much in a large as in a small building, owing to the area being broken up into small sections. There should, therefore, be a fixed rate per square foot for one washing on both sides, with half of that rate for one side. The number of times the windows are to be cleaned during the year might possibly enter into the determination of the amount fixed as the rate.

d. *Care of yards and sidewalks.* The total area is obtained and a rate fixed at a certain amount per square foot. In some cases a rate per linear foot is made for sidewalks.

e. *Care of lawns.* A rate per square foot is fixed which differs according to conditions in different localities.

2. *Rooms.* In using the number of rooms as a basis, those which should be counted are regular classrooms, kindergarten rooms, manual training rooms, rooms for domestic economies and possibly office rooms. An extra amount could be fixed for assembly halls or they could be reckoned as a certain number of rooms.

A modification of this plan which is also used is to fix a certain amount for the care of the building and in addition an amount for each room in actual use as a classroom. This oper-

ates as a sliding scale, changing with the number of rooms in use.

In the above plan the amount fixed usually covers every service, including care of yards and sidewalks, cleaning windows and care of heating systems, except in buildings equipped with plants having high pressure boilers and complicated systems of heating and ventilating, which require licensed engineers, who are employed at special rates. The rates of pay are classified according to positions, as engineers, day and night firemen, men and women cleaners, night watchmen, oilers, coal passers, etc.

Besides the principal factors named there are numerous minor items which might enter into the determination of the amount of compensation, but the rates for the main factors could be made sufficiently high to cover these.

An objection might be raised against this plan in that the varying types of buildings which exist in most cities make the fixing of a rate upon a room-basis alone unfair. Some buildings have larger corridors, wider stairways and more basement space than others with the same number of rooms.

3. *Buildings.* By this plan a rate is fixed for each building considered independently. If buildings are of the same size and type and the same activities are conducted therein they can be grouped. In determining the amount to be fixed as the compensation for the care of any building it is necessary to know the kinds and quantity of work required, the frequency with which each kind is to be performed, the standard to be attained and the methods to be followed. It is evident these factors will vary in different buildings.

The amount of time consumed for the proper performance of the required work will be ascertained, the number and character of persons needed depending on the quantity and variety of the work. By this plan as in the others, the character of the plants installed will enter into the determination of the amount to be paid.

In some schools what may be called the contract system is employed. The janitor is paid a lump sum annually for the care of the building, out of which he furnishes his supplies and hires his help. This contract system may be advantageous in the case of large buildings. A serious objection to such a plan is that the school authorities have no control over the persons employed by the contractor. This plan might operate well in a building devoted to business purposes, but for a school building it is important that the employees should be of such a type as we would be willing to have in the presence of our children.

In some cities a modification of this plan is in vogue. A rate is fixed at a certain amount for the building and the janitor is required to furnish the necessary supplies for his work but does not employ the assistants, these being furnished by the city. This method saves the city or board the cost of handling, storing and delivering and the janitor can suit himself as to the kind of supplies. There are disadvantages, however, in this plan, one of which is that the supplies may fall below the standard which may or ought to be required.

It would seem that the school authorities should keep the care of buildings entirely under their control, which is not the case in the contract system or any modification of it.

## BUFFALO SCHOOLS REPLACE OBSOLETE LIGHTING

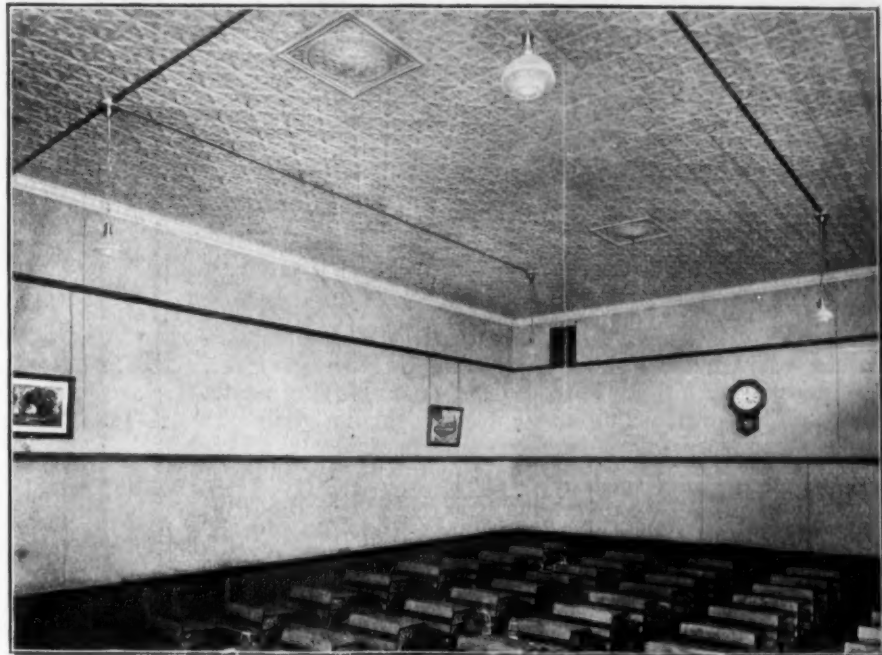
with the



**P**OOR lighting is unfair to the student. Just as unfair as poor ventilation or insufficient heat.

Keenly alive to this fact, the Board of Education of Buffalo, N. Y. is remodeling the lighting system of its schools. The two ceiling panels in the accompanying photograph indicate the positions of the discarded lighting units in a classroom of Public School No. 7. Their place was taken by the Holophane System of Illumination as adopted by the City of Buffalo for its schools.

This system provides a flood of powerful diffused light, so distributed by means of scientifically designed prisms that the greater part of the illumination



Classroom of Public School No. 7, Buffalo, N. Y. lighted with Holophane Reflector-Refractors.

falls on the desks and blackboards. And yet, with all its brightness, Holophane is absolutely devoid of glare.

*Full particulars and photographs of Holophane School installations sent on request. Write today.*

**HOLOPHANE GLASS COMPANY, Inc.**  
340 Madison Avenue Dept. H 14 New York

It may be that no perfectly just standardized schedule of wages can be made on any one basis. A wage fixed for each individual building, the amount being dependent on the quantity and character of the work required, would perhaps come nearer attaining the desired result than a wage fixed upon either of the other bases. A combination of the features of either the area or room plan or portions of both with the individual building plan might possibly approach nearest to the ideal. In any event, the salary should be for the position and not for the individual, the individual however being entitled to any extra pay allowed him under a classified merit system.

Whatever basis may be used in standardizing the rate of wage for the janitorial force, there will always be some factors not present in all buildings which should carry an extra amount of pay. For instance, an additional amount per annum should be added to the janitor's pay for each humidifier, air washing plant, swimming pool and for other adjuncts which require special care. A requirement that the janitor be on duty in bathrooms, if not common to all buildings, should also carry extra pay. There should, of course, be an equitable rate fixed for night school work and the "extended use" of school buildings. If living quarters are furnished a fair amount should be deducted from the janitor's pay.

There should be a classified list of janitors, determined by merit, efficiency, faithfulness, length of service, etc., which would give additional pay according to the class. This would offer an incentive to the janitor to make himself eligible for promotion to a higher class and would remove the objections to a standardized

rate of wages in that it would give the more worthy men more pay than the one who does just enough to pass the requirements, and would allow the individual element to enter and receive recognition. A too strict adherence to an inflexible standardized wage rate would have the effect of stifling or discouraging individual effort and initiative. This should be guarded against by the adoption of a carefully devised scheme of rewards for merit and efficiency.

Whatever means are taken to cause a realization of the importance and responsibility of the duties which devolve upon those charged with the care of our school buildings, and whatever measures are adopted which will result in the improvement of the personnel of the janitorial force, will all tend to the improvement of the school system and to an increase in the health, welfare and comfort of pupils and teachers.



Fig. 27. Wood Street School, Philadelphia. Described by London architect as "characteristic specimen."

### SCHOOL ARCHITECTURE.

(Continued from Page 25)

can architecture, writes: "The Newton Primary School, Ludlow Street, Philadelphia, (Illustration 26) is so planned that without abandoning the use of the large schoolroom, the entire area is convertible into six classrooms by means of partitions sliding horizontally. Thus, at pleasure, the whole can be used as one large room, or can be subdivided into a series of rooms for separate classes. When in their subdivided condition do they thoroly exclude sound? Do they not continually get out of gear and cause interruption of work until set aright?" . . . "The plan is extremely interesting to the English eye at the present moment, as combining the advantages of a hall or assembly with those of the separate classroom system. But it is impossible to believe that with the rough usage common to schools, so vast a system of movable partitions is not liable to constant disorder, and consequent interference with the working of the school." . . . "The Wood Street School (Illustrations 27 and 28) . . . give five rooms similarly arranged. The exterior view presents a characteristic specimen of school architecture in the United States." . . .

(To be continued.)

### SCHOOL RECESSES.

(Continued from Page 29)

versa as is usually done. These periods ought not to be the same for each grade or for some of the subjects in the same grade; and the fetish of uniform length for high-school periods will be gradually discarded thru various combinations of recitation and study time. Furthermore, there is little valid proof in favor of spe-

## The Ash Removal Problem -- Solved



G & G Telescopic Hoists are solving the ash removal problem in schools all over the country. They are being *repeatedly* specified by the most prominent school architects—the best evidence of satisfactory performance.

Model B Telescopic Hoist, illustrated, raises filled can from cellar to wagon without rehandling at sidewalk level. It is equipped with G & G Automatic Gear Shifting Brake Device and Silencer, which automatically throws gears out of mesh whenever brake lever is used to lower load. This prevents hoisting handle from revolving and makes the lowering of cans simple and speedy. Silencer makes the entire operation noiseless.

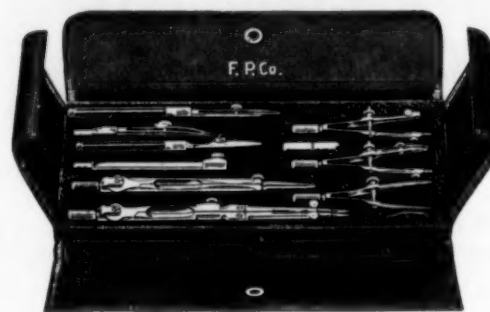


MODEL B TELESCOPIC HOIST  
(Illustrated)  
F. O. B. NEW YORK CITY, \$185.00

When not in use, hoist telescopes and no part shows above sidewalk. The entire operation is performed from the sidewalk by one man—a protection for both public and operator against injury due to open hatch.

Booklet giving complete detailed description sent on request.

**GILLIS & GEOGHEGAN**  
551 West Broadway  
NEW YORK CITY



If you contemplate the installation of any Mechanical Drawing or Manual Training Equipment, it will pay you to write for prices and samples.

POST'S Dependable Drafting Supplies and Furniture are made in our own Factory and supplied direct.

## THE FREDERICK POST COMPANY

Main Office—Irving Pk. Station—Chicago, Ill.

Branches—San Francisco, Portland, Ore.  
Los Angeles, Calif.

cific subjects at specific times of the day or in a hard and fast sequence. It does seem probable that some such schedule as is here suggested could be used in many schools without much modification. But the schedule is given primarily as a basis for suggestions from others.

### Two Functions of Recesses.

Before discussing the management of recesses, it is well to mention their two main functions. On the basis of tests before and after recess, especially the noon intermission, several German and American students have drawn positive conclusions as to the recuperative value of such pauses; but the technique of some of these researches is open to criticism. There is an almost universal belief that recesses relieve the strain of school work, and this belief seems justified in practice tho with little scientific proof. The relief probably comes more thru a change from the immobility of seat-work, the repression of discipline, and the boredom of instruction than thru a reduction of actual fatigue; and the recuperation is to be sought more in better will to work and better discipline than in the quality or quantity of test results. However, the point of the present study is that the negative tho highly important function of relief is secondary to the positive function of exercise, recreation, and association. Recesses are not merely essential in the daily schedule; they are essential in education. And the real worth of these periods can never be realized thru emphasis upon one of their functions alone.

(To be concluded in September.)

### DUTIES AND POWERS OF PRINCIPALS.

(Concluded from Page 18)

there are so few large cities in Iowa, the work of the high-school principal is, in some respects, everywhere the same. There is no principal

who does not spend part of his daily time in conference with his teachers and pupils; most of them confer with parents; the big majority teach some classes; nearly all supervise study-rooms and halls to maintain discipline; and, in all cases, the principal is the court of the next to the last resort.

### Conclusions.

The percentage of college and university graduates now acting as principals of high schools in Iowa has a particular significance. Competition is becoming keener all the time and it has become imperative that these principals avail themselves of the professional training offered by the universities. Long experience does not necessarily rank with higher preparation and the high salaries are evidently being paid on the basis of educational training.

The typical high-school principal of Iowa, described in terms of medians discovered by this study, is one receiving an annual salary of \$863.80; has had 10.9 years of experience prior to being selected for his present position; has served 1.5 years in his present position; has attended high school four years, college 4.4 years, and has the Bachelor of Arts degree from some higher institution in the state of Iowa. His responsibility is divided between teaching 16.27 classes per week and supervising 1.37 study-periods per day. Seven teachers are employed in his school and 132 students are enrolled. This principal has attended the Iowa State Teachers' Association one time, at least, in the last five years, and reads 1.67 educational magazines regularly. He has no powers delegated by state law but, in spite of this legal handicap, has not lost faith and attends the services of the church every Sunday.

### DR. SMITH IN SALT LAKE.

(Concluded from Page 20)

of the civic and commercial clubs of the city were invited to inspect the school plant, and to discuss with the school board, all proposed expenditures, with the result that the school board will have the enthusiastic support of the leading business interests of the city.

Dr. Smith is distinguished for the community viewpoint that he has in mind constantly. Exhibitions of the work of Utah artists are given in the schools. The paintings of John Hafen were viewed by 9,000 children of the upper grades. A great musical festival of 5,000 voices was held on the steps of the State Capitol overlooking the great valley and Salt Lake.

Dr. Smith has been most successful in securing the co-operation and genuine sympathy of an unusually strong corps of principals and teachers, who are each making an effort to contribute the greatest service to the schools.

Burr W. Torreyson was recently elected president of the State Normal School at Conway, Ark., to succeed J. J. Doyne. Mr. Torreyson was formerly superintendent of schools at Fort Smith and Little Rock, and for several years was professor of secondary education for the Arkansas State Board.

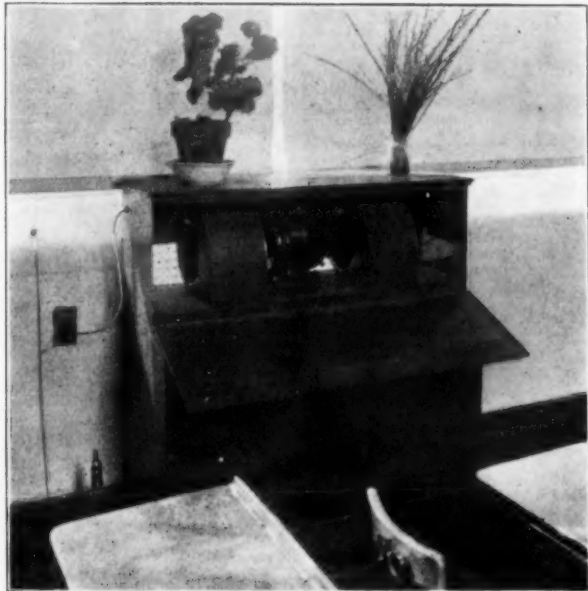
The new rules are intended to increase the efficiency of the teachers and to pave the way for increased salaries.

Marshalltown, Ia. The board has given increases of seven per cent to all teachers. The increase in salaries amounts to \$4,500.

Woonsocket, R. I. The board has granted increases of \$50 to teachers of the primary and grammar schools.

Green Bay, Wis. Teachers have been given increases in pay, ranging from five to ten per cent per month.

Dallas, Tex. The pay of grade teachers has been increased five per cent on the basis of their present salary.



**T**HE matter of efficiency and expense in operating a Heating and Ventilating System depends largely upon its location in the building, its method of installation, and the means employed to govern the admission of fresh air. It is of vital importance to have the system planned, and the installation supervised by thoroughly competent and experienced men who have made a special study of the particular problem involved.

The Peerless Unit System of Ventilating and Heating secures an adequate system installed and supervised by experts.

Send us your Ventilating problems.

**PEERLESS UNIT VENTILATION CO., Inc.**  
1328 Broadway NEW YORK

## Stop the Waste

**Self-Moistening Money Savers  
are Guaranteed to Give  
Longer Wear and Cleaner Floors**



We guarantee that \$1.00 to \$2.00 worth of Kerosene used in our self-moistening sweeper goes farther and does better sweeping than \$20.00 worth of Sweeping Compound or Floor Oil.

Entire cost per year guaranteed not to exceed \$1.50 per classroom and it should not be over \$1.00 per classroom per year.

**SENT ON APPROVAL. 30 DAYS' FREE TRIAL  
EXPRESS PREPAID**

Please say of what materials your floors  
are made and whether rough or smooth.

**Send for folder "Faster and Easier Dustless  
Sweeping," and Save Four-fifths  
of Your Sweeping Bill.**

**MILWAUKEE DUSTLESS BRUSH COMPANY**

Making Guaranteed Brushes Since 1889

102 Twenty-Second Street

MILWAUKEE, WIS.

## Place Your Order NOW

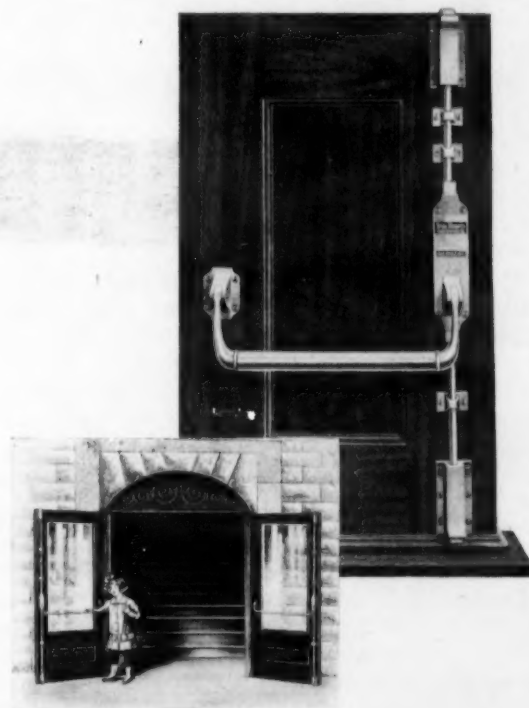
We make this suggestion in order that you may not be disappointed. Materials are hard to get. It is likely we shall not be able to take care of the normal summer demand for Von Duprin Devices.

This is the time of year when most school boards decide to equip their school entrances with Von Duprins. If you want your device installed this summer, **ORDER NOW.**

All orders will be filled in the order of their receipt. Early orders will insure prompt delivery.

# Von Duprin

**Self-Releasing Fire Exit Latches**



Von Duprins are the choice of leading school architects in all parts of the country. They are endorsed by every School Board that has installed them.

Absolute dependability, superior construction, thorough, skilled workmanship—tell the story of Von Duprin success.

Our service department is always ready to co-operate with you in selecting the Von Duprin design best suited to meet your requirements.

See "Sweet's" or ask for Catalog 12-C.

**VONNEGUT HARDWARE CO.**  
INDIANAPOLIS, INDIANA



## Bronze Memorial Tablets

Designs and Estimates Free

Send for free illustrated Booklet

Jno. Williams, Inc., Bronze Foundry  
OFFICE: 559 WEST 27th ST., NEW YORK

## PLEASE ORDER EARLY



Delays in deliveries will be unavoidable this season

Eagle Pencil Company

(EDUCATIONAL DEPARTMENT)

703 East 13th Street

New York

### Free Speech.

"Write an editorial," said the publisher of the *Tibet Courier* to his editorial writer, "about the disgrace of Prof. Scott Nearing's dismissal. Say that free utterance is necessary to growth and to independent thinking; that it is as necessary as a free press and ought to be as common."

"But," said the editorial writer of the *Tibet Courier*, "I think a certain amount of dogma is necessary. Besides, we haven't a free press in Tibet, and you know it."

"We have," yelled the publisher. "Go ahead and write what I tell you. Who owns this paper—you or I?"—New York Tribune.

### Taking No Chances.

A freckle-faced girl stopped at the post-office and inquired:

"Anything for the Murphys?"

"No, there is not."

"Anything for Jane Murphy?"

"Nothing."

"Anything for Ann Murphy?"

"No."

"Anything for Tom Murphy?"

"No."

"Anything for John Murphy?"

"No, not a bit."

"Anything for Terry Murphy?"

"No, nor for Pat Murphy, nor Dennis Murphy, nor Peter Murphy, nor Paul Murphy, nor for any Murphy, dead, living, unborn, native or foreign, civilized or uncivilized, savage or barbarous, male or female, black or white, naturalized or otherwise, soldier or citizen. No, there is positively nothing for any of the Murphys, either individually, jointly, severally, now and for ever, one and inseparable."

The girl looked at the postmaster in astonishment. "Please," she said, "will you see if there is anything for Bridget Murphy."

"I say, old boy, lend me an X."

"Would if I could, dear chap, but there's an algebraic difficulty in the way."

"What is it?"

"An X with me is an unknown quantity."

"Well?"

"Now you may have to model something in clay or even go out and capture a live snake."

### Gradually.

First Student: "How did he get to be a college president?"

Second Student: "Oh, by degrees."

Teacher—"Give me a definition of the word transparent."

Johnny—"Something you can see thru."

Teacher—"Give me an example."

Johnny—"A pretzel."

### In Current Events Class.

Mary: What are you cutting out of that paper, John Boles?

Johnny: Something I don't want teacher to see.

Mary: What is it?

Johnny: It's a report that says wooden slippers are coming into fashion because of the high cost of leather.

### Prepared.

Military Inspector—Have your students had any military training?

Principal—Well, most of them have been soldiering here for years.

### Briefly Put.

A New England teacher traveling thru the hills, noted various quaint expressions. For instance, after a long ride he sought provisions at a mountain hut.

"What d' yo'-all want?" called out a woman.

"Madam," said the teacher, "can we get corn bread here? We'd like to buy some of you?"

"Corn bread? Corn bread, did yo' say?" Then she chuckled to herself, and her manner grew amiable. "Why, if corn bread's all yo' want, come right in, for that's just what I hain't got nothing else on hand but."

### A Practical Application.

"When Josh got home from his education," said Farmer Cornloss, "he started right in instructin' me about agriculture. So I didn't lose no time to try him out."

"What did you do?"

"Sent him out to round up a swarm of bees."

"Was the experiment successful?"

"Some. It didn't hurt the bees none, an' kep' Josh from gettin' in the way fur 'most two weeks."

### Chance for Speculation.

The teacher of a night-school in Chicago was endeavoring to instill in the minds of some of the discouraged pupils some notions of ambition.

"Do you know," he asked of a seedy looking boy of twenty, "do you know that every lad in the country has a chance to be President?"

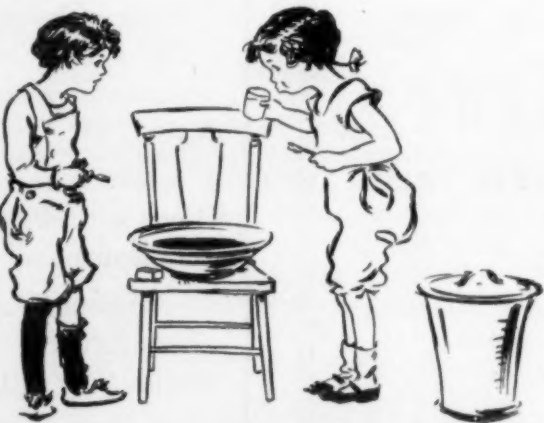
"Is that so?" asked the seedy one, reflectively. Then he added:

"Say, I'll sell my chance for ten cents."

### Suggestion to Up-To-Date School Children.

When told by the geography teacher to bound Germany say:

"On the west, Petain, Pershing and Haig; on the south, Cadorna; on the east, Ivanoff and Alexieff; on the north, Admiral Jellicoe and the U-boats."



"This toothbrushing business makes me tired. I'm goin' to wear a mustache when I grow up."  
—Life.

### First of a Numerous Tribe.

"Richard," said the teacher, "what is your idea of that ancient implement of warfare known as the battering ram?"

"The battering ram," answered the young man with the bad eye, "was the original Buttinski."

"I'll never write to a college girl again."

"Why not?"

"Oh, nothing much. I have just learned that two hundred of her classmates read my letters regularly."

### Exempt.

The teacher was giving the school a little lecture on good conduct.

"Avoid criticising," she said.

"Don't make a practice of finding fault with other people, or picking flaws in what they say or do."

"Teacher," spoke up a little boy, "that's the way my father makes his livin'!"

"You surprise me, George! What is your father's occupation?"

"He's a proofreader, ma'am." The teacher coughed. "Well, George," she said, "I make an exception in the case of your father."—Youth's Companion.

### Turning the Other Cheek.

While Rutherford B. Hayes was a college student he went out walking one day with two of his chums and met an old farmer coming along the road. The future president addressed him in this manner:

"Good morning, Father Isaac!"

Then his two friends spoke to the old tiller of the soil, one calling him Father Abraham and the other Father Jacob.

"Gentlemen, you are mistaken," said the old man solemnly. "I am neither Abraham, Isaac, nor Jacob, but Saul, the son of Kish, who was sent out to find his father's asses, and lo, he has found them."—Judge.

### Simplified Spelling.

The dentist had just moved into a place previously occupied by a baker, when a friend called.

"Pardon me a moment," said the dentist, "while I dig off those enamel letters of 'Bake shop' from the front window."

"Why not merely dig off the 'B' and let it go at that?" suggested the friend.

### Teaching Nothing.

Dr. Howe, president of Case School, Cleveland, never fails to express his vexation when he has a student call the zero of mathematics nothing. One of the students, Morgenthaler by name, would almost invariably read an equation like this,  $x + y = 0$ , as follows: "X plus y equals nothing." One day Dr. Howe lost his long-enduring patience. "See here, Morgenthaler, let me show you the difference between zero and nothing."

With this, Dr. Howe wrote a big 0 on the blackboard. "This," he said, "is zero." Then erasing the 0, he added: "And this is nothing."

# Educational Trade Directory

The names given below are those of the leading and most reliable Manufacturers, Publishers and Dealers in the United States. None other can receive a place in this Directory. Everything required in or about a schoolhouse may be secured promptly and at the lowest market price by ordering from these Firms.

- ADJUSTABLE WINDOW SHADES.**  
Oliver C. Steele Mfg. Co.  
L. O. Draper Shade Co.  
Suprema Shading Works.  
Caxton School Supply Co.  
The Aeroshade Co.  
Perennial Shade Co.  
Frampton Window Shade Co.
- ART MATERIALS.**  
Binney & Smith  
Eagle Pencil Co.  
American Crayon Co.  
Devoe & Raynolds.
- ASH HOISTS.**  
Gillis & Geoghegan.
- AUDITORIUM SCENERY.**  
Sosman & Landis.
- AUDITORIUM SEATING.**  
Haney School Furniture Co.  
Peabody School Furniture Co.  
American Seating Co.  
Peter & Volz Co.  
Steel Furniture Co.  
N. J. School & Church Furn. Co.  
Heywood Bros. & Wakefield Co.  
Empire Seating Co.
- BANKING MACHINES.**  
American Banking Mach. Co.
- BLACKBOARDS—COMPOSITION.**  
N. Y. Silicate Book Slate Co.  
American Seating Co.  
Beaver Board Companies.  
Caxton School Supply Co.
- BLACKBOARDS—NATURAL SLATE.**  
Keenan Structural Slate Co.  
Penna. Struct. Slate Co.  
Natural Slate Blackboard Co.
- BOOK COVERS.**  
Holden Patent Book Cover Co.
- BOOK PUBLISHERS.**  
A. J. Barnes Pub. Co.  
D. C. Heath & Co.  
Isaac Pitman & Sons.  
Silver, Burdett & Co.  
Christopher Sower Co.  
Rand, McNally & Co.  
American Book Co.  
J. B. Lippincott Co.  
Newson & Co.
- BRONZE TABLETS.**  
Imperial Brass Mfg. Co.
- BUILDERS' HARDWARE.**  
Russell & Erwin Mfg. Co.
- CHEMICALS.**  
Central Scientific Co.
- CLAMPS.**  
Standard Scientific Co.
- CRAYONS.**  
Binney & Smith.  
American Crayon Co.  
Peckham, Little & Co.  
Peter & Volz.  
E. W. A. Rowles Co.
- CRAYON TROUGHS.**  
Dudfield Mfg. Co.
- DEAFENING QUILT.**  
Samuel Cabot.
- DESK SURFACING MACHINE.**  
Wayvell Chappell & Co.
- DISINFECTANTS.**  
Theo. B. Robertson Products Co.  
Central City Chemical Co.
- DOMESTIC SCIENCE EQUIPMENT.**  
E. H. Sheldon & Co.  
Kewanee Mfg. Co.  
C. Christiansen.  
Leonard Peterson & Co.  
Grand Rapids School Equip. Co.  
Federal Equipment Co.
- DOOR CHECKS.**  
Norton Door Check Co.  
Russell & Erwin Mfg. Co.  
Sargent & Company.
- DRAFTING ROOM FURNITURE.**  
E. H. Sheldon & Co.  
C. Christiansen.
- DRAWING MATERIAL.**  
Frederick Post Co.
- DRINKING FOUNTAINS.**  
L. Wolf Mfg. Co.  
Jas. B. Clow & Sons.  
N. O. Nelson Mfg. Co.  
Rundell-Spence Mfg. Co.  
Glauber Brass Mfg. Co.  
D. A. Ebinger Sanitary Mfg. Co.  
Imperial Brass Co.
- ENGRAVINGS.**  
Premier Eng. Co.
- ERASERS.**  
Peter & Volz.  
Caxton School Supply Co.  
Associated Mfgs. Co.
- ERASER CLEANERS.**  
American Seating Co.  
Dudfield Mfg. Co.
- FILING CABINETS.**  
Globe-Wernicke Mfg. Co.  
Yawman & Erbe Mfg. Co.
- FIRE ALARM SYSTEMS.**  
Holtzer-Cabot Electric Co.  
Stand. Electric Time Co.
- FIRE ESCAPES.**  
Dow Wire & Iron Works.  
Minnesota Manufacturers Assn.  
Stewart Iron Works.
- FIRE EXIT DEVICES.**  
Vonnegut Hardware Co.  
Sargent & Co.
- FIRE EXIT LATCHES.**  
Vonnegut Hdw. Co.  
Russell & Erwin Mfg. Co.  
Sargent & Company.
- FIREPROOF CONSTRUCTION.**  
Trussed Concrete Steel Co.
- FIRE PROOF DOORS.**  
Dahlstrom Metallic Door Co.
- FLAG POLES.**  
Milwaukee Steel Post Co.  
Otto Biefeld & Co.  
N. O. Nelson Mfg. Co.
- FLAGS.**  
The Chicago Flag & Decorat. Co.  
Annin & Co.
- FLOOR BRUSHES.**  
Milwaukee Dustless Brush Co.
- FLOOR DEAFENING.**  
Samuel Cabot.
- FLOOR SURFACING MACHINE.**  
Wayvell Chappell & Co.
- FOLDING PARTITIONS.**  
Folding Partition Co.
- FORGES.**  
Oliver Machinery Co.
- FUMIGATORS.**  
Central City Chemical Co.
- FURNACES.**  
Haynes-Langenberg Mfg. Co.
- FURNITURE.**  
American Seating Co.  
Peabody School Furniture Co.  
Haney School Furniture Co.  
Peter & Volz Co.  
Steel Furniture Co.  
N. J. School & Church Furn. Co.  
Heywood Bros. & Wakefield Co.  
Columbia School Supply Co.  
Empire Seating Co.  
E. H. Stafford Mfg. Co.  
Qualit Art Furniture Co.  
Educational Equip. Co.
- GAS MACHINES.**  
Detroit Heat & Light Co.  
Enterprise Optical Mfg. Co.
- GLOBES.**  
Rand, McNally & Co.  
C. S. Hammond & Co.  
Modern School Supply Co.
- GRAPHOPHONES.**  
Columbia Graphophone Co.
- GYMNASIUM APPARATUS.**  
Fred Medart Mfg. Co.  
W. S. Tothill.  
American Playground Device Co.
- HEATING APPARATUS.**  
Amer. Foundry & Furnace Co.
- HEATERS.**  
Haynes-Langenberg Mfg. Co.  
Virginia School Supply Co.  
The Waterman Waterbury Co.
- INDIVIDUAL TOWELS.**  
Individual Towel & Cabinet Service Co.
- INK-DRY.**  
E. W. A. Rowles Co.
- INK-FLUID.**  
Francis J. Peck & Co.
- INK WELLS.**  
U. S. Inkwell Co.  
The Tannewitz Works.  
American Seating Co.  
Squires Inkwell Co.  
Sengbusch Self-Closing Inkstand Co.
- JANITORS' SUPPLIES.**  
Theo. B. Robertson Products Co.  
B. J. Johnson Soap Co.  
Milwaukee Dustless Brush Co.
- LABORATORY FURNITURE.**  
Kewanee Mfg. Co.  
Leonard Peterson & Co.  
Columbia School Supply Co.  
Federal Equipment Co.  
Grand Rapids School Equip. Co.
- LABORATORY SUPPLIES.**  
Schaar & Co.  
Central Scientific Co.
- LATHES.**  
Oliver Machinery Co.  
E. H. Sheldon & Co.  
Crescent Machine Co.  
C. Christiansen.  
Tannewitz Works.  
Amer. Wood Work. Mach. Co.  
Grand Rapids School Equip. Co.  
W. R. Price.
- LIBRARY SHELVING.**  
Durand Steel Locker Co.
- LIGHTING FIXTURES.**  
Reflectolyte Co.  
Holophane Glass Co.
- LIQUID FLOOR HARDENER.**  
L. Sonneborn Sons.
- LIQUID SLATING.**  
N. Y. Silicate Book Slate Co.
- LIQUID SOAP.**  
Associated Mfrs. Co.  
Imperial Brass Mfg. Co.  
B. J. Johnson Soap Co.
- LOCKERS.**  
Federal Steel Fixture Co.  
Fred Medart Mfg. Co.  
Berger Mfg. Co.  
Durand Steel Locker Co.
- MACHINERY.**  
Oliver Machinery Co.  
Crescent Machine Co.  
Amer. Wood Work. Mach. Co.
- MANUAL TRAINING BENCHES.**  
E. H. Sheldon & Co.  
C. Christiansen.  
A. L. Bemis.  
Kewanee Mfg. Co.  
Grand Rapids School Equip. Co.  
W. R. Price.  
Federal Equipment Co.
- MAPS.**  
C. S. Hammond & Co.  
Rand, McNally & Co.  
Modern School Supply Co.  
Garden City Educational Co.
- MEMORIAL TABLETS.**  
John Williams, Inc.
- METAL LATH.**  
Trussed Concrete Steel Co.
- MICROSCOPES.**  
Spencer Lens Company.  
Bausch & Lomb Opt. Co.
- MOTION PICTURE MACHINES.**  
Nicholas Power Co.  
Enterprise Optical Mfg. Co.
- PAINTS-WALL.**  
Keystone Varnish Co.
- PAPER BALERS.**  
Davenport Mfg. Co.  
Wenzelmann Mfg. Co.
- PAPER TOWELS.**  
Holden Patent Book Cover Co.
- PARTITIONS.**  
Trussed Concrete Steel Co.
- PENCIL MANUFACTURERS.**  
Eagle Pencil Co.
- PENCIL SHARPENERS.**  
F. H. Cook & Co.
- PEN MANUFACTURERS.**  
Eagle Pencil Co.
- PLAYGROUND APPARATUS.**  
Fred Medart Mfg. Co.  
W. S. Tothill.  
Hill-Standard Mfg. Co.  
American Playground Device Co.
- PLUMBING FIXTURES.**  
L. Wolf Mfg. Co.  
James B. Clow & Sons.  
Rundell-Spence Mfg. Co.  
N. O. Nelson Mfg. Co.  
D. A. Ebinger Sanitary Mfg. Co.  
Imperial Brass Co.
- PORTABLE SCHOOLHOUSES.**  
Mershon & Morley.  
American Portable House Co.  
The Armstrong Co.  
Louis Bossert & Sons.
- PRINTERS' SUPPLIES.**  
American Type Founders Co.  
Golding Mfg. Co.
- PROGRAM CLOCKS.**  
Standard Electric Time Co.  
Landis Eng. & Mfg. Co.
- PROJECTION LANTERNS AND ACCESSORIES.**  
Bausch & Lomb Opt. Co.  
McIntosh Stereop. Co.  
Enterprise Optical Mfg. Co.
- RECORD SYSTEMS.**  
C. F. Williams & Son, Inc.
- REINFORCED STEEL.**  
Trussed Concrete Steel Co.
- RELIEF GLOBES AND MAPS.**  
Modern School Supply Co.
- SCHOOL LIGHTING.**  
Reflectolyte Co.
- SCIENTIFIC APPARATUS.**  
Schaar & Co.
- SELF MOISTENING BRUSHES.**  
Milwaukee Dustless Brush Co.
- SHADE CLOTH.**  
Stewart Hartshorn Co.
- SHADE ROLLERS.**  
Stewart Hartshorn Co.
- SOAP DISPENSERS.**  
B. J. Johnson Soap Co.
- SWEEPING COMPOUNDS.**  
Theo. B. Robertson Products Co.
- TALKING MACHINES.**  
Victor Talking Machine Co.
- TEMPERATURE REGULATION.**  
Johnson Service Co.
- TOILET PAPER.**  
Peckham, Little & Co.
- TOWER CLOCKS.**  
Standard Electric Time Co.
- TYPE.**  
American Type Founders Co.
- VACUUM CLEANING SYSTEMS.**  
United Electric Co.  
Spencer Turbine Cleaner Co.
- VARNISH.**  
Keystone Varnish Co.
- VENTILATING APPARATUS.**  
Amer. Foundry & Furnace Co.
- VENTILATORS.**  
Peerless Unit Vent. Co.
- VICES.**  
Oliver Machinery Co.  
C. Christiansen.  
Tannewitz Works.  
A. L. Bemis.  
Grand Rapids School Equip. Co.
- WAGONS.**  
The Wayne Works.  
Studebaker Corporation.  
Miller Vehicle Heater Co.
- WALL BURLAP.**  
Cott-a-Lap Co.
- WALL DEAFENING.**  
Samuel Cabot.
- WALL PAINTS.**  
Keystone Varnish Co.
- WASTE PAPER BASKETS.**  
American Vulcanized Fiber Co.
- WATER COOLERS.**  
The Waterman Waterbury Co.
- WINDOWS—ADJUSTABLE.**  
Austral Window Co.
- WINDOWS—STEEL.**  
Trussed Concrete Steel Co.
- WIRE FENCES.**  
Stewart Iron Works.
- WIRE WINDOW GUARDS.**  
L. O. Draper Co.
- WOODWORKING MACHINERY.**  
Oliver Machinery Co.  
Crescent Machine Co.  
Tannewitz Works.  
American Wood Work. Mach. Co.  
Grand Rapids School Equip. Co.  
W. R. Price.

## REFERENCE INDEX

Page	Page
Aeroshade Co., The.....44	Johnson Service Co.....68
American Book Co.....16	Johnson, R. R.....14
American Crayon Co.....61	Keenan Struct. Slate Co.....1
American Foundry & Furn. Co.....48	Kewanee Mfg. Co.....48
American Playground Device Co.....7	Keystone Varnish Co.....42
American Portable House Co.....4	Landis Eng. & Mfg. Co.....11
American Seating Co.....55	McIntosh Stereop. Co.....40
American Type Founders.....46	Medart Mfg. Co., Fred.....54
American Vulcanized Fibre Co.....54	Mershon & Morley Co.....4
American Woodworking Mach. Co.....12	Miller Vehicle Heater Co.....7
Annin & Co.....12	Milwaukee Dustless Brush Co.....71
Armstrong Co., The.....4	Minnesota Mfrs. Assn.....8
Associated Mfrs. Co.....8 and 14	Modern School Supply Co.....12
Austral Window Co.....Fourth Cover	Natural Slate Blackboard Co., 2nd Cov.
Barnes Pub. Co., A. J.....12	Nelson Mfg. Co., N. O.....8 and 49
Bausch & Lomb Optical Co.....43	N. J. School & Church Furn. Co.....58
Beaver Board Cos., The.....3	Newson & Company.....62
Bemis, A. L.....4	N. Y. Silicate Book Slate Co.....12
Berger Mfg. Co.....46	Norton Door Check Co.....8
Biefeld & Co., Otto.....15	Oliver Machinery Co.....6
Binney & Smith Co.....60	Peabody School Furn. Co.....12
Bossert & Sons, Louis.....4	Peckham, Little & Co.....10
Cabot, Samuel.....Fourth Cover	Peck & Co., Francis J.....8
Caxton School Supply Co.....2	Peerless Unit Vent. Co.....71
Central City Chemical Co.....15	Penna. Struct. Slate Co.....1
Chicago Flag & Decor. Co., The.....8	Perennial Shade Co.....46
Christiansen, C.....1	Peterson & Co., Leonard.....48
Clow & Sons, James B.....47	Peter & Volz Co.....6
Columbia Graphophone Co.....59	Pick & Co., Albert.....63
Columbia School Supply Co.....56	Pitman & Sons, Isaac.....62
Cook & Co., F. H.....12	Post Co., Frederick.....70
Cott-a-Lap Co.....14	Power Co., Nicholas.....67
Crescent Machine Co.....12	Premier Eng. Co.....64
Dahlstrom Metallic Door Co.....66	Price, W. R.....8
Davenport Mfg. Co.....68	Qualit Art Furniture Co.....64
Detroit Heating & Light Co.....61	Rand, McNally & Co.....62
Devoe & Raynolds.....61	Robertson Products Co., Theo. B.....16
Dow Wire & Iron Works.....1	Rowles Co., E. W. A.....10
Draper Shade Co., Luther O.....44	Rundell-Spence Mfg. Co.....53
Dudfield Mfg. Co.....4	Sargent & Co.....9
Durand Steel Locker Co.....41	Schaar & Company.....6
Eagle Pencil Co.....72	Sengbusch Self-Closing Ink. Co.....11
Ebinger San. Mfg. Co., D. A.....50	Sheldon & Co., E. H.....16
Educational Equipment Co.....56	Silver, Burdett & Co.....16
Empire Seating Co.....58	Sonneborn Sons, L.....7
Enterprise Optical Mfg. Co.....66	Sosman & Landis.....61
Federal Equip. Co., The.....2	Sower Co., Christopher.....62
Federal Steel Fixture Co.....12	Squires Inkwell Co.....10
Folding Partition Co.....13	Standard Elec. Time Co., 4th Cover
Frampton Window Shade Co.....14	Standard Scientific Co.....10
Garden City Edu. Co.....14	Steele Mfg. Co., Oliver C.....14
Gillis & Geoghegan.....70	Steel Furniture Co.....56
Glauber Brass Mfg. Co.....53	Stewart Iron Works Co.....6
Globe-Wernicke Co.....42	Tannewitz Works, The.....15
Golding Mfg. Co.....13	Tothill, W. S.....12
Grand Rapids School Equip. Co.....13	Trussed Concrete Steel Co.....57
Hammond & Co., C. S.....12	United Electric Co., The.....9
Haney School Furn. Co.....12	U. S. Inkwell Co.....2
Hartshorn Co., Stewart.....14	Victor Talking Machine Co.....29
Haynes-Langenberg Mfg. Co.....11	Virginia School Supply Co.....8
Heath & Co., D. C.....16	Vonnegut Hardware Co.....71
Heywood Bros. & Wakefield Co.....54	Wayne Works, The.....5
Hill-Standard Mfg. Co.....13	Wayvell Chappell & Co.....4
Holden Patent Book Cover Co.....40	Wenzelmann Mfg. Co.....6
Holophane Glass Co.....69	Whitcomb & Boyce.....14
Holtzer-Cabot Elec. Co., The.....48	Williams & Sons, C. F.....15
Imperial Brass Mfg. Co.....52	Williams, Inc., John.....72
Ind. Towel & Cabinet Service Co.....6	Wimmer & Co., C. I.....14
Johnson Soap Co., B. J.....64	Wolf Mfg. Co., L.....53

If any articles or textbooks cannot be found listed, write our Subscribers' Free Service Department, care of American School Board Journal, Milwaukee, Wis.

# 15 SCHOOLS IN PROVIDENCE AND IMMEDIATE VICINITY

*Equipped with "Standard" Electric Time Systems*



LAUREL HILL AVENUE SCHOOL, PROVIDENCE, R. I.  
Archts. Clarke & Howe.



GEORGE J. WEST SCHOOL, PROVIDENCE, R. I.  
Archts. Murphy, Hindle & Wright.



JOHN HOWLAND SCHOOL, PROVIDENCE, R. I.  
Archts. Stone, Carpenter & Sheldon.

In every corner of the United States you will find "Standard" Electric Time Systems faithfully ticking the minutes; constantly watching over the most valuable asset our school children have—TIME.

A "Standard" Electric Time System would be a splendid investment for your school. Write home office or nearest branch for further information.



## THE STANDARD ELECTRIC TIME COMPANY SPRINGFIELD, MASS.

BRANCHES: 50 Church Street  
NEW YORK

261 Franklin Street  
BOSTON

Rockefeller Building  
CLEVELAND

Brown-Marx Building  
BIRMINGHAM, ALA.

341 North Crawford Ave.  
CHICAGO

Marsh-Strong Building  
LOS ANGELES

461 Market Street  
SAN FRANCISCO

Act quickly if you want equipment installed for Fall Term.



HIGHLAND PARK SCHOOL, HIGHLAND PARK, MICH.  
Wells D. Butterfield, Architect.

500 Sets 2B Austral Hardware to Equip the  
Windows of this Building

## Austral Should Be Used in All New Schools

Board of Education,  
Highland Park, Mich.  
July 20, 1916.

Gentlemen:

The AUSTRAL Windows are in use in our  
High School and in the James B. Angell School.  
We are pleased with them and in favor of using  
them on other new buildings.

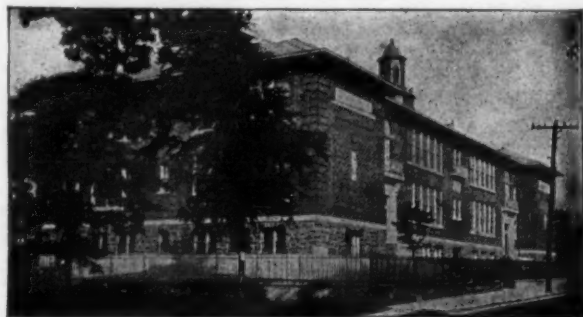
Very truly yours,  
F. J. KNAPP.

Write for New School Catalog, Ready Jan. 15, 1917.

**AUSTRAL WINDOW COMPANY**

101 Park Ave.

New York



HIGH SCHOOL, GRANTWOOD, NEW JERSEY  
Ernest Sibley, Architect, Palisade, N. J.

Deadened with Cabot's Quilt

"Next to light and ventilation the most important item of school-house construction is sound-proof floors and partitions".

## CABOT'S DEAFENING "QUILT"

is the

scientific and standard deadener.  
Sound, insect and vermin-proof,  
unflammable and sanitary.

Send for samples and special book on school-house deadening

**SAMUEL CABOT, Inc.,** Sole Manufacturers  
1133 Broadway, New York BOSTON, MASS., U. S. A.  
24 W. Kinzie St., Chicago

BEWARE OF UNSANITARY IMITATIONS